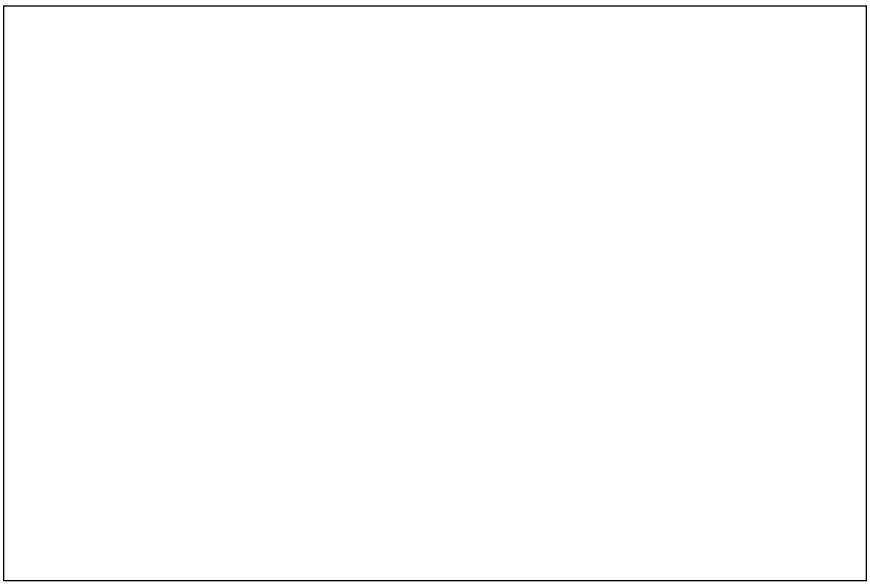
The Road to Independence



Seated are Dr. Roger G. Miller and Herman S. Wolk (*left to right*) with panel moderator Dr. Rebecca H. Cameron standing at the rear with Maj. Robert P. White and Dr. George M. Watson, Jr., standing to her left.

Air Power Engineer: Maj. Gen. Mason M. Patrick and the Air Force Road to Independence

Robert P. White

In the summer of 1923, in a cloudless sky above Bolling Field just outside Washington, D.C., a student pilot of the Army Air Service soloed for the first time. When he lifted off the grass airstrip moments before, he banked to the right and, turning, followed the Potomac River upstream on the first leg of what would be his successful proficiency flight to become the oldest Junior Military Aviator in the history of the Air Service, and the oldest rated officer ever, in what would become the United States Air Force. Maj. Gen. Mason M. Patrick, Chief of the Army Air Service since October 1921, earned his wings that day at the age of fifty-nine. In December 1927, as General Patrick was about to retire, he flew over Bolling Field again, this time as Chief of the vastly improved Army Air Corps. From his first solo flight to his last active duty sortie, Mason Patrick presided over six years of extraordinary change within the Army Air Service and its successor, the Army Air Corps.

Unfortunately, little is known of this individual who, in retrospect, was responsible for saving a fledgling air force from a variety of self-inflicted wounds and many competing and self-serving outside interests. Nor has there been much study of the Air Service and Air Corps during the interwar period, especially the decade following World War I. In a popular and scholarly sleight of hand, it seems that if one knows the story of Billy Mitchell, enough said. Billy Mitchell and his travails have personified and dominated the era. Mitchell, however, was only part of the story.

When Mason Patrick took over the Air Service in 1921, at the request of his West Point classmate Gen. John J. Pershing, it seemed as if the Army Air Service was in its death throes.[1] The Air Service, with a little over 200 officers, was a mere skeleton compared to its size during the American Expeditionary Force (AEF) days of World War I, and it was embroiled in doctrinal disagreements, fiscal deficiencies and personal antagonisms as well.

At the armistice on November 11, 1918, the Air Service had almost 200,000 personnel; 11,000 planes (of the 27,000 ordered) in 45 aero squad-

rons; and 48 air fields complemented by 19 supply depots around the country.[2] The acquisition, training and supply pipelines of the Air Service were running at peak capacity on Armistice Day, but late that very afternoon the Air Service began to demobilize. Unfortunately, there had been very little forethought concerning the manner in which demobilization would be accomplished, let alone any consideration regarding the composition of the postwar Air Service. Of course, this should have come as no surprise, given the relative disinterest in American military aviation since the Wright brothers first flew.

This is not to say that no attempts to plan for the future were made before World War I. On the contrary, there was much talk, but little action. Between 1908 and 1913 the United States spent approximately $435,000 on military and naval aviation; by comparison, France spent $22 million during the same period.[3] When one puts American air power personalities in historical perspective, much of the early trench work was done by unsung heroes: Foulois, Fechet, Arnold and Lahm, to name a few. By comparison, although Billy Mitchell uttered not a word about airplanes until 1916, when he began to speak, write, dictate and pontificate about American air power, his was the voice that made headlines. Ultimately, Mitchell's court-martial ensured his martyrdom and enshrined his memory in Air Force history to the exclusion of many other notable air power advocates of the time.[4]

Mason Patrick, Mitchell's boss, was one of those. Patrick assumed the stewardship of America's military aviation organization on two critical occasions, and he held together the wildly competing centrifugal forces swirling in and about the Army Air Service. It must be said that Billy Mitchell contributed mightily to those clashing currents. The conflicting forces could either be brought into harmonious (or at least grudging) balance or else, if left untethered, they threatened to sunder the promise of an independent air force. Although overshadowed to a great extent by the Mitchell controversy and its subsequent notoriety, it was Mason Patrick who engineered and laid the groundwork for independence.[5]

The martyrdom of Billy Mitchell crystallized overnight into Air Force mythology. Propagated initially by his acolytes, Mitchell's gospel of the dominance of air power was carried with missionary zeal to the present day. This is not to say that Mitchell's contributions were unimportant. He was a magnificent air combat leader in World War I, synthesizing the best of French, Italian and British air doctrine, and after the war, his sensationalist-oriented mastery of the media contributed greatly to the public's awareness of the role of air power and to Mitchell's own quest for Air Service independence.

But it was Patrick, as Billy Mitchell's superior, who manifested an unerring sensibility in guiding the Air Service to a *realistically achievable* degree of autonomy. Initially, keeping the Air Service breathing, let alone gaining its autonomy, was a massive and problematic undertaking. From October 1921 through 1927, it fell to Patrick to orchestrate the behind-the-scenes policies

and politics that eventually resulted in the creation of the U.S. Army Air Corps in July 1926, along with an impressive five-year procurement program.[6] Mason Patrick was chiefly responsible during this period for ensuring the creation of a firm foundation for an independent Air Force of the future.

Patrick's aversion to sensationalist headlines only enhanced his effectiveness as an Army insider and an aviation advocate. Patrick agreed with much of what Billy Mitchell espoused, and he voiced many of those same opinions in his congressional testimony, speeches and doctrinal statements. But Patrick's moderate approach was based on firm grounding in doctrinal justification. Patrick was practical enough to know that the Air Service's survival depended on a doctrine that explicitly supported the need for autonomy. Most important, though, it was the *degree* of autonomy pursued by Patrick (in various ways and at various times) that made him different; in the long run he was much more effective at enhancing the credibility of the Air Service than Mitchell. It was Patrick's political "horse sense," influence and determined agenda that ensured a victory with the ultimate creation of the Air Corps in 1926.[7]

To understand the enormous challenge that Patrick faced, one must appreciate the historical development of American military aviation, starting from the day in 1903 that the War Department "lost" a $50,000 investment when Dr. Samuel Pierpont Langley's ill-fated "aerodrome" monoplane toppled into the Potomac.[8] This embarrassment, coupled with the U.S. Army's innately orthodox approach to new technology (a distinct lack of appreciation for the airplane as a weapon), a conservative congressional fiscal policy, and America's inherent isolationism, severely dampened any enthusiasm for military aviation until the nation's entry into World War I.[9] In Europe, on the contrary, aviation enjoyed immense and enthusiastic support.[10] The appreciation of air power, both military and civilian, was initially almost wholly lost on the American psyche. The advances that did occur in American aviation were due to a handful of dedicated entrepreneurs and scientists whom one historian termed the "invisible establishment."[11] It took an acutely embarrassing performance during the 1916 Punitive Expedition into Mexico and a world war to eliminate this lethargy and kick-start American military aviation, which by this time lagged far behind the Europeans.[12] As a result, during World War I U.S. pilots mostly flew second-hand European aircraft and employed European air doctrine, there being no indigenous American doctrine developed prior to the war.[13]

In revolutionary terms, World War I was to American military aviation what the Spanish American War had been to the U.S. ground army: a call for a dramatic reappraisal and new courses of action. The reassessment occasioned by the Great War led to many contentious confrontations not only between soldiers and airmen but among airmen themselves. These disputes would not have been so disruptive if not for the fact that they were taking place

in the midst of a war. General Pershing, as the AEF commander, was not only caught up in doctrinal distractions, but he had to contend with the inflated egos of Billy Mitchell and Benny Foulois, which ultimately led to the appointment of Pershing's good friend, Brig. Gen. Mason Patrick, as Chief of the Air Service, AEF.[14] Pershing fully realized the capabilities and disabilities of his two top Air Service officers: Mitchell was dogmatic, flamboyant and an excellent combat commander; Foulois, while less capable as a combat leader, was the best "homegrown" senior officer the Air Service had produced up to that time. But neither was a good administrator. Pershing put the AEF Air Service leadership problem into perspective when noting that they were "good men running around in circles."[15] To get the Air Service to fly in single formation, Pershing appointed one of the strongest administrators he knew, a trusted friend and West Point classmate.

Mason Mathews Patrick graduated second in his 1886 West Point class. His high class standing allowed him to choose his career field, and Patrick chose to be an engineer.[16] It was a job he performed with drive and administrative skill up to the moment that Pershing asked him to take over the AEF Air Service. Patrick's no-nonsense approach brought order to the personality-induced chaos that had engulfed the Air Service. That Pershing had to go outside the Air Service to find a commander points up a major shortfall that would continue to plague the young air arm: lack of capable senior leadership.[17] As General Patrick later noted in his diary, Pershing might well have dismissed both Mitchell and Foulois had other experienced airmen been waiting in the wings.[18] With Patrick in charge, the AEF Air Service began to provide the much needed support that Pershing desperately required, but there were still problems with the way Mitchell and many of his contemporaries viewed their ultimate utilization as a combat arm. The organizational arguments and the question of the capabilities of air power that took root during the war would pit airman against soldier for the next forty years, but the issue would be most divisive in the years immediately following World War I.

At the close of the war Mason Patrick remained in Paris to assist Pershing and the American peace delegation. Patrick made it clear that he did not wish to continue as head of the Air Service.[19] Maj. Gen. Charles T. Menoher, a straightlaced infantry officer who had commanded the Rainbow Division on the Western Front, was appointed the Air Service Chief, the job Billy Mitchell coveted. The inevitable clash of wills between Menoher and Mitchell ultimately resulted in the removal of Menoher by Secretary of War Weeks.[20]

Pershing again asked Mason Patrick to head the Air Service. Patrick agreed, and on October 5, 1921, he found himself as Air Service chief due to command difficulties which centered primarily on personality problems. Other long-standing factors—the evolution of aircraft technology, new air war fighting concepts and a dearth of funding—heightened tensions within the Air

Service itself and especially in the relationship of the Air Service with the War Department.

Mitchell had returned to the United States in March 1919 with his visionary blueprint for a new military policy based on the omnipotence of air power, but he mistakenly assumed that everyone would fully appreciate and readily implement his vision once he was in charge. Again Patrick attempted with a steady and knowledgeable hand to rein in Mitchell's traits of sensationalism and uncompromising character. In fact, even Sir Hugh Trenchard, Chief of the Royal Flying Corps during World War I, commented about his friend Mitchell: "If he can only break his habit of trying to convert opponents by killing them, he'll go far."[21]

On the road to Air Service independence the Patrick-Mitchell relationship was only part of the story. Patrick also faced challenging relationships with the War Department heads and the General Staff; the Navy (especially Josephus Daniels and Admiral Moffett); Presidents Harding and Coolidge; key congressional air activists of the era; industrialists; inventors; and a group of Young Turks (besides Mitchell) within the Air Service itself.

In other words, Patrick was charged with bringing order to an organization that seemed to be in conflict with every other federal entity in Washington and beyond. But, given his stature and good standing within the War Department and Congress, Patrick was able to push Air Service ideas that would have been greeted with derision if voiced by die-hard air power advocates. In this endeavor, Patrick was not in the least bit obsequious, nor was he averse to a good fight. His confrontations with congressional committees, members of the War Department, the Navy Department and some of his own officers demonstrated his intelligence, wit, determination and charm.

What were Patrick's ideas about air power? Quite simply, he viewed air power in much the same light as Billy Mitchell did. Patrick knew the value of air power, but most important, he grasped the *limitations* as well as the *capabilities* of air power at that time. This is not to say he saw air power as relatively static—quite the contrary. Patrick was a professionally schooled engineer with an agenda. His agenda concerned commercial aviation development, Air Service officer professionalization, the development of air power doctrine, and legislative initiatives that would set the Air Service on the path to independence. With regard to the first of these issues, commercial aviation, when Patrick took over as Chief of the Air Service, he decried the abysmal condition of the aircraft industry. He was a firm believer in the vitality of the commercial and civil aviation infrastructure, and he set to work, in his own way, to turn promise into reality. It was obvious to Patrick that a viable aviation industry had to be in place prior to a conflict; to play "catch-up" after the start of the war would almost guarantee failure. During the war Patrick had learned that the average life of a single-seat fighter was six weeks.[22] Patrick was determined to assist the aviation industry by eliminating a source of direct compe-

tition with commercial manufacturing: the Air Service's Engineering Division at McCook Field, which was tasked with the design and prototype production of new aircraft. Patrick ordered the division to halt current and future design work on new Air Service aircraft. Instead, the Air Service Engineering Division became responsible for the testing and acceptance of new aircraft designs submitted by commercial manufacturers. As he attested during the influential Lampert hearings in 1922, Patrick was convinced that the aircraft industry could design and produce first-rate military aircraft.[23]

Patrick also initiated a move to eliminate the requirement for an aircraft company to sell its design rights to the government, thereby losing all patent protection. Patrick successfully lobbied Assistant Secretary of War Dwight Davis, who supervised all War Department procurement, to change the rule concerning proprietary design rights. Davis eventually ruled that the government would "recognize the principle of proprietary design rights" for aircraft manufacturers.[24] Thus, Patrick could invoke a sole-source requirement, due to the patent on a particular aircraft design, and be assured that the company would be relatively well positioned to provide a good product. The competitive bidding process, in which the lowest bid almost invariably won, had led to major quality control problems and numerous bankruptcies.[25]

The need for separate Commerce Department oversight and control of commercial aviation in the United States was another of Patrick's themes. Here, Mitchell and Patrick differed. Mitchell campaigned for an all-inclusive federal Department of Aeronautics that would control all aviation assets—military, commercial and civil.[26]

Patrick was indeed ahead of his time, and stayed ahead of his detractors as well. He initially envisioned an Air Corps and Army relationship that was analogous to what the Marines and the Navy enjoyed: separate services within the same department. He supported full autonomy, a unified and separate air force, but it would be achieved by a gradualist approach. He had a road map to get there, and the route was through legislation. A December 19, 1924, letter to Secretary of War Weeks explained in a nutshell what General Patrick had in mind for the future of the Air Service:

> I recommend that legislation be prepared at once to create an Air Corps; although I believe the ultimate solution of the national defense problem is a Department of National Defense, with the air, land, and sea forces as coordinate parts thereof. In the interim the best solution to the immediate problem with regard to the Air Service is the passage of the proposed legislation to create an Air Corps. Operating under the Second Assistant Secretary of War, it can be advancing toward the position it would logically assume in a Department of National Defense.[27]

Unequivocally, Patrick was for an independent air force, but unlike Mitchell, Patrick had a precise road map to get there. Patrick's pièce de résistance was his 1924 proposal that ultimately led to the creation of the Air Corps in 1926. With such a success, if anyone can claim bragging rights, it was Patrick. Granted, due to political pressures, Patrick did not get all he asked for, but his achievement was a major step toward recognizing the unique status of the air force as a whole, the need for rated officers to fill command positions, and funding for a massive aircraft acquisition program.[28]

Patrick not only engaged on the legislative front but he also entered into a raucous and tenacious struggle involving new technology and new doctrine, both of which bumped up against hard political realities. In his attempt to institutionalize new doctrine, Patrick spoke and lectured regularly at Leavenworth and the Army War College about the capabilities of air power. The emphasis on new doctrine was facilitated by the professional education of a relatively small coterie of Air Service and Air Corps pilots at the Air Corps Tactical School. Patrick did not agree with all of the ideas that were coming out of the school, but he heartily endorsed its educational and professional benefits. An intense camaraderie developed among the school's graduates and especially among its faculty. This group of officers and their beliefs set them squarely at odds with the War Department bureaucracy and the Department of the Navy. They called for resource reallocation and development of a war-fighting doctrine that inherently internalized the rationale for service independence, both causes supported by Patrick. In effect, the professional military education of the time, rationalized via doctrine, justified the need for service independence.

What made this doctrinal and independence debate so interesting is that it was based to a great extent on unproved theories, and what many would say were futuristic fantasies. If the Air Service was largely, if not exclusively, tied by doctrine to the ground force mission, there existed no rationale to support autonomy, and there would be no need for additional monies to support the infrastructure and mission of a separate service. General Patrick keenly appreciated the critical aspect that doctrine played in the resource debate, and he judiciously supported principles that best supported an independent air force. At the same time, he never underestimated the importance of the airman's support of troops on the ground. In his final report at the conclusion of World War I, he urged that ground attack (close air support, and interdiction to a lesser extent) be greatly enhanced, and he was true to this belief throughout his tenure as Chief of the Air Service and Air Corps.[29]

By implementing a detailed plan to obtain independence that contained the critical aspects of legislation, education, doctrine, commercial and civil aviation initiatives, and a good mix of public and private politics, Patrick proved to be an exceptionally far-sighted Air Service Chief. He was practical in his outlook as well as a progressive visionary in his quest to obtain as much autonomy for the Air Service as possible. His was a balanced and successful

approach to air power advocacy. Unlike Billy Mitchell, Patrick represented an era of planned evolutionary change, accomplished through competitive revolutionary theories within a conservative regulatory tradition. Against immense odds, the Air Service, under Patrick's guidance, was put on a precise heading: a flight path to independence.

Notes

1. Mason M. Patrick, *The United States in the Air* (Doubleday, Doran & Co., Garden City, N.Y., 1928), pp. 82–85, 89–91.

2. Mauer Mauer, *Aviation in the U. S. Army, 1919–1939* (Center for Air Force History, Washington, D.C., 1987), pp. xxi–xxii.

3. Charles J. Gross, "George Owen Squier and the Origins of American Military Aviation," *The Journal of Military History,* Jul 1990, p. 287.

4. Alfred F. Hurley, *Billy Mitchell, Crusader for Air Power* (Indiana University, Bloomington, 1975), p. 12.

5. In addition to Hurley, see Isaac Don Levine, *Mitchell, Pioneer of Air Power* (Duell, Sloan & Pearce, New York, rev 1958); Burke Davis, *The Billy Mitchell Affair* (Random House, New York, 1967); and Roger Burlingame, *General Billy Mitchell* (McGraw Hill, New York, 1952). Each of these books, written in the popular genre, have flaws and biases that tend to glorify Mitchell's actions and denigrate, downplay, or simply dismiss those individuals who were not in agreement with Mitchell. In the case of Mason Patrick, all three authors tend to dismiss Patrick as a hidebound obstructionist concerning Air Service independence, and too much of a traditionalist in the General Staff mold. However, Patrick's congressional testimony and personal correspondence indicate that he was ideologically compatible with Mitchell. See Record Group (RG) 18, Series 321.9 and Entry 228, Boxes 1–8, National Archives (NA).

6. See RG 18, Series 321.9, "Air Corps Act," Box 484, NA. Mason Patrick and his staff (including Maj. Herbert "Bert" Dargue, Maj. W.G. Kilner, and Capt. Ira Eaker) drafted the legislation for what ultimately became the 1926 Air Corps Act. See file A–1, Jan 29, 1926, for Ltr (w/attachments), from Brig. Gen. J.E. Fechet, Acting Chief of Air Service, to the Secretary of War.

7. For an excellent dissection of Billy Mitchell's court-martial, see Michael L. Grumelli, *Trial of Faith: The Dissent and Court-Martial of Billy Mitchell* (unpublished Ph.D. dissertation, Rutgers University, New Brunswick, N.J., 1991).

8. Juliette A. Hennessy, *The United States Air Arm, April 1861 to April 1917* (Office of Air Force History, Washington, D.C., 1985), pp. 20–21.

9. I.B. Holley, *Ideas and Weapons* (Office of Air Force History, Washington, D.C., 1989), pp. 25–38; Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907–1960* (Air University Press, Maxwell AFB, Ala., 1989), Vol. I, pp. 15–19; R. Earl McClendon, *Autonomy of the Air Arm* (Air University, Maxwell AFB, Ala., 1954; Air Force History & Museums Program, Washington, D.C., 1996), pp. 1–6.

10. Richard P. Hallion, *Rise of the Fighter Aircraft, 1914–1918* (Nautical & Aviation Publishing Co. of America, Baltimore, Md., 1984), pp. 2–4; C.V. Smith, *Aviation: An Historical Survey from its Origins to the End of World War II* (HMSO, London, 1970), chap. 1.

11. Gross, "George Owen Squier," p. 288.

12. Alfred Goldberg, *A History of the United States Air Force, 1907–1957*, (D. van Nostrand Co. Inc., Princeton, N.J., 1957), pp. 9–10. For a detailed and complimentary account of American military aviation development and logistical support (or lack there-

of) during this period, see Roger G. Miller, *Keep 'Em Flying: A History of Air Force Logistics from the Mexican Border to the Persian Gulf* (Air Force History & Museums Program, Washington, D.C., 1997), unpublished manuscript, pp. 45–58.

13. See Lee Kennett, *The First Air War, 1914–1918* (Free Press, New York, 1991), pp. 93–113; R.R. Flugel, *United States Air Power Doctrine: A Study of the Influence of William Mitchell and Giulio Douhet at the Air Corps Tactical School, 1921–1935* (unpublished Ph.D. dissertation, University of Oklahoma, 1965), p. 30; also see Holly, pp. 50–63.

14. John J. Pershing, *My Experiences in the World War* (Frederick A. Stokes Co., New York, 1931), Vol. II, p. 50; see also Patrick, *United States in the Air*, pp. 3–8.

15. Patrick, *The United States in the Air*, p. 6.

16. United States Military Academy, *Official Register of the Officers and Cadets of the U.S. Military Academy, 1885–1892*, Class of 1886, USMA Archives, p. 10.

17. If it were not for the actions of Congress, the Air Service would have had even fewer experienced officers when World War I began. Before the war, neither the War Department nor the Signal Corps supported the Aeronautical Division to any great extent. In fact, the Signal Corps had to be prompted by Congress in 1913 and again in 1914 to submit legislation concerning flight pay and for the expansion of the military aviation program. Even then the 60 officers and 240 enlisted men that were approved for the Aeronautical Division constituted less than 0.4 percent of an Army that totaled 98,544. What exacerbated the situation was that most of the officers were volunteers from other branches, serving four years and then returning to their original career field. See Alfred F. Hurley and William C. Heimdahl, "The Roots of U.S. Military Aviation," in *A History of the United States Air Force*, Bernard C. Nalty, ed. (Air Force History & Museums Program, Washington, D.C., 1997), Vol. I, pp. 26–28.

18. Daniel R. Mortensen, "The Air Service in the Great War," in *History of the United States Air Force*, Nalty, ed., Vol. I, pp. 54–60.

19. Patrick was indeed adamant about not continuing as Air Service chief, stating in his diary while still in Europe: "I do not want to have anything more to do with the Air Service after I get back. I shall be glad to lay down the burden I have been carrying and then at home to fall at once from my high estate. It will be quite a fall, but I am not going to mind it much, provided I get off in a[n engineering] district somewhere and can just have *enough* to do, not too much." Unpublished diaries, Maj. Gen. Mason Patrick, Jan 8–July 14, 1919, entry for May 6, 1919, Mason M. Patrick Diary, United States Air Force Academy Library.

20. Futrell, *Ideas, Concepts, Doctrine*, Vol. I, p. 37.

21. H.R. Allen, *The Legacy of Lord Trenchard* (London, Cassell & Co., 1972), p. 82.

22. Patrick, "Report of the Chief of the Air Service," in *United States Army in the World War, 1917–1919* (GPO, Washington, D.C., 1948), p. 278; Kennett, *The First Air War*, p. 94.

23. U.S. Congress, House, *Report of the Select Committee of Inquiry into Operations of the United States Air Services, House Report No. 1653* (GPO, Washington, D.C., 1925). [Otherwise known as the Lampert Hearings].

24. John B. Rae, "Financial Problems of the American Aircraft Industry, 1906–1940," *Business History Review*, Spring 1965, pp. 46–48.

25. Edwin H. Rutkowski, *The Politics of Military Aviation Procurement, 1926–1954*, (Ohio State University Press, Columbus, 1966), passim.

26. William Mitchell, *Our Air Force* (E.P. Dutton & Co., New York, 1921), pp. 200–203.

27. Memorandum for the Secretary of War, January 29, 1926 (with attachments), RG 18, Series 321.9, Box 484, "Air Corps Act," NA.

28. Billy Mitchell thought very little of Patrick's 1924 initiative, and when it was passed into law in 1926, Mitchell derided the results as quite inadequate because total independence was not achieved. Mitchell's attitude was unfortunate in that Patrick had smoothed things over during an ugly incident in the last months of Billy's first marriage,

when Mrs. Mitchell contacted senior Army officers about Billy's "recent erratic conduct." Patrick also went to bat for Mitchell with Secretary Weeks and supported Mitchell's reappointment as Assistant Chief in 1925. See Burke Davis, *The Billy Mitchell Affair* (Random House, New York, 1967), pp. 128–131, 203–204.

29. Patrick, "Report of the Chief of the Air Service," pp. 231, 234.

The U.S. Army Air Corps and the Search for Autonomy, 1926–1943

Roger G. Miller

By the time the United States entered World War I in April 1917, the European powers had learned the vital importance of aviation in the roles of reconnaissance and observation, tactical support, and, to a lesser extent, bombardment. The American Army had to digest quickly the crucial lesson already absorbed by the Europeans: that modern armies could ill afford to be without air power. Control of the air was a necessary preliminary to victory. By November 11, 1918, that lesson had been learned, and learned well. "Military forces can never be efficiently . . . operated without an air force," Gen. John J. Pershing, Commander of the American Expeditionary Force, affirmed in 1919.[1] Two stipulations, lessons of combat on the Western Front, qualified this conclusion. First, most Army leaders agreed that as important as aviation had become, it had failed to alter the essential nature of warfare; air power by itself could not influence the outcome of a war. "The arrival of new weapons operating in an element hitherto unavailable to mankind will not necessarily change the ultimate character of war," the Morrow Board affirmed in 1925. "The next war may well start in the air but in all probability will wind up, as the last one did, in the mud."[2] And second, U.S. Army leaders agreed that Army control of aviation was a necessity. "A military air force is an essential combat branch," Pershing asserted in 1920, "and should form an integral part of the army."[3]

For most airmen, however, experience on the Western Front suggested something different. Appalled by what they had seen in the trenches, entranced by the ideas of a small number of theorists, they came to believe that air power could be the decisive factor in war. And victory through air power, they concluded, could best be attained by an air force independent of ground leaders ignorant of the opportunities inherent in this new arena of warfare. In the biting words of Brig. Gen. William "Billy" Mitchell, a leading spokesman for the cause of independence, "to entrust the development of aviation to either the Army or the Navy is just as sensible as entrusting the development of the electric light to a candle factory."[4]

This controversy between ground officers who knew the value of air power to the Army and wanted to maintain aviation as an important auxiliary and airmen who sought to develop the full potential of air power by separating aviation from the Army dominated the history of military aviation prior to World War II. Gradually, the separatists won. The Army Air Service was established on June 4, 1920; the Army Air Corps on July 2, 1926; GHQ Air Force on March 1, 1935; and the U.S. Army Air Forces on June 20, 1941. A final organizational change on March 9, 1942, gave the airmen autonomy, but not yet independence. Under this organization, the U.S. Army Air Forces implemented and accomplished a strategic bombardment campaign of massive proportions that reduced German and Japanese production facilities, transportation systems, and cities to rubble. The performance of the U.S. Army Air Forces in its strategic and tactical roles during World War II earned independence from the U.S. Army on September 18, 1947.

Contrary to popular belief and traditional versions of history, it was to the advantage of military aviation that the Air Corps remained part of the U.S. Army during the period between 1926 and 1942. Army leaders believed that through such half measures as creating the Air Corps and GHQ Air Force they had ensured that land-based military aviation would remain the property of the U.S. Army. What they had actually accomplished, however, was to provide a protective nest within which Air Corps leaders could nurture their fledgling force. The U.S. Army Air Corps thus had the opportunity during the 1930s to gird itself with doctrine and mission, appropriate equipment, and savvy leaders, protected to a great extent by the U.S. Army from presidential and congressional budget-cutting and the need to develop, fund, and justify a separate support infrastructure. When the opportunity to demonstrate maturity arose, the Air Corps was prepared. By forestalling early independence, U.S. Army leaders ensured that independence and the ability to act independently came at the same time. One need look no further than to the words of the commander of the Army Air Forces during World War II. “Despite popular legend we could not have had any real power much sooner than we got it,” Henry H. “Hap” Arnold later wrote. “By that, I mean the genuine nucleus of air power, able to expand quickly enough to meet whatever demands were made upon it.”[5]

To understand the Air Corps during the 1930s one must begin by recognizing that, despite his great ability as a combat commander and his effectiveness as an oracle of air power, and for whatever good his flamboyant actions accomplished, Billy Mitchell thoroughly poisoned the well. Assuming the aspect of a messianic prophet, Mitchell came to believe that those who opposed him and his ideas were either stupid, immoral, or criminally negligent. His targets ultimately included not only Congress, Presidents, and the U.S. Navy, but also his own War Department. He failed to accept that budget austerity was as much a part of the problem as pettifogging generals and admirals with doctrinal ideas

firmly rooted in the previous century. His attitude lent a special stridency and temper to his arguments and justified, in his own mind, any measures that he took. Mitchell's legacy and tactics passed to later Air Corps officers James E. Fechet and, especially, Benjamin D. Foulois, whose intemperate claims, constant complaints, and willingness to appeal to Congress and the public outside the chain of command alienated the War Department between 1928 and 1935. Initial distrust became outright hostility, and Army leaders ceased listening to their own airmen. In response, airmen developed a persecution complex in which the bureaucracy—the Army leadership, War Department, Executive Branch, Congress, Navy—was hostile to the air arm.[6]

Yet airmen did face legitimate obstacles that fueled the agitation for independence. Undoubtedly, the most important of these was Army unwillingness to recognize the potential of the airplane to become a decisive weapon and to accept a doctrine that sought to exploit that capability. In other grievances, separatists too often felt that they had little say in their own future. The Army promotion system denied them a voice in the higher levels of Army councils, the General Staff system provided a veto over aviation initiations, and the few senior airmen lacked access to the national leadership. This situation led them to make end runs to Congress, newspapers, and the public. Another factor was ennui, the boredom of a military force in peacetime, particularly when it lacks a credible outside threat. Even the uncomfortable Army uniform became a bone of contention. In the final analysis, budget problems were what fueled the push for independence, and abundant evidence suggests that had military aviation of the 1920s and 1930s developed during a period of abundant funding, airmen would have been less vocal. Denied the resources they believed necessary to their mission, however, Air Corps leaders fought for independence in a large part because they believed that independence would give them access to the budget.[7]

The conflict over the budget reflected two opposing views of military doctrine. U.S. Army leaders throughout the interwar years consistently maintained that trained, experienced personnel were the key to victory in war. Successive Army chiefs of staff logically and correctly stressed a balanced Army led by well-trained officers, and opposed supporting one branch of the service at the expense of the others.[8] Air Corps leaders, in contrast, placed their faith in technology, which was inordinately expensive. Between 1928 and 1933, Air Corps leaders consistently sought a disproportionate slice of the budget to fund that technology. While airmen sought independence for many reasons, one of the most significant was certainly access to the annual budget seemingly denied the Air Corps by the War Department.

Aviation writers and historians have generally accepted the claims that Army leaders unfairly starved the air arm of funding and that the Air Corps would have realized more of its potential had it been independent of the Army. Comparison of the annual appropriations between fiscal years 1926 and 1940

appears to support such claims. Generally speaking, the differences between the dollar amounts requested by the Air Corps and those approved by the Secretary of War during this period far exceeded similar differences between either the War Department and the Executive Branch or the Executive Branch and Congress. But it is the budget process that explains this circumstance, not an Army conspiracy. Army leaders were up against the parsimony of the Bureau of the Budget in the Executive Branch and pacifism in Congress. Between the two, the Bureau of the Budget was the greater hurdle. It spoke for the President, and thanks to the Budget and Accounting Act of 1921, once a decision was made, the War Department could not appeal the results to Congress. The Army, under the fiscal restrictions of the 1920s and 1930s, argued regularly for additional appropriations, but it was forced to bow to reality, making do with what it could get. Logically and justly, its leaders emphasized the whole Army, avoiding expensive programs that benefited part of the force to the detriment of the others.[9] The Executive Branch established basic budget guidelines to be followed by all parts of the government including the War Department, which submitted its budget within those parameters. Congress tended to pass the budget sent by the Executive Branch. The Air Corps, however, especially between 1928 and 1933, consistently submitted budgets far larger than the funding guidelines could accommodate.

At the height of the Great Depression, Air Corps leaders used the Five-Year Program established by the 1926 Air Corps Act as justification for outsized requests. The most significant provisions of the Air Corps Act of July 2, 1926, authorized the Air Corps a total of 1,650 officers and 15,000 enlisted men—an increase of 403 officers and 6,240 enlisted men—and provided for a total of 1,800 serviceable aircraft all to be reached by equal increments beginning in 1928. This Five-Year Program promised much, delivered much less, and inadvertently caused a serious rift between the Army and its airmen. Congress failed to appropriate sufficient funds, and the President determined to fund the program by economy in other areas. In short, for five years the Air Corps was built with money and men taken from the rest of the U.S. Army. Then, when the Great Depression set in, money literally dried up. The number and quality of aircraft lagged behind the expansion program, as did the numbers of officers and enlisted personnel. According to airman Lt. Gen. George H. Brett, intimately involved in this fight for air independence, it did not matter to the Army Air Corps leaders that money was severely limited; they still expected the Five-Year Program to be fully funded, even at the expense of the rest of the Army.[10]

And it was. The truth is that the air arm received a greater percentage of the military budget than its size justified, and it did so largely because Army leaders recognized that technology was expensive. Between 1920 and 1934, the Air Corps spent between 13.1 and 22.7 percent of the Army's annual budget. On the average, this branch—which comprised about 11 percent, or slight-

ly over one-tenth, of the Army—spent 18.2 percent, almost one-fifth, of the annual budget each year. In 1931 alone, an Air Corps one-tenth the size of the Army received 20 percent of the annual appropriations for the year.

And the ground Army's technology suffered accordingly. It was much less well equipped by the early 1930s than the Air Corps. In 1934, for example, the Army had several hundred inferior light tanks of World War I vintage; of the new light tanks, the Army had 12 on hand and 64 on order. The field artillery was still equipped with the World War I French "seventy-five." The replacement for this weapon was markedly superior, but the Army had none. Throughout this period the Army asserted that the infantry won battles and wars, but this belief failed to translate into budget primacy. The 1903 Springfield rifle was arguably the finest infantry weapon of its day; however, by 1934 the Army had developed a superior semiautomatic weapon. It only had 80 with another 150 on order. And the Army was also far behind the times in developing a modern .50 caliber machine gun. Transport too remained in pitiable condition. Most Army vehicles, mostly commercial types dating from World War I, were unsuitable for military use and hard to maintain. Only in 1934 and 1935 did the Public Works Administration provide $10 million to fund partial mobilization for the Regular Army and National Guard. The U.S. Army ground forces were at least as badly off as the Air Corps. The Chief of Staff in 1934, Gen. Douglas MacArthur, noted that while the Army had failed to meet the Five-Year Program because of the drastic impact of economic conditions of the times, the Air Corps was reasonably well equipped, and some of its aircraft, the Martin B–10 especially, were comparable or superior to any aircraft in the world.[11]

The Air Corps also benefited in the area of manpower. The Five-Year Program required the Army to man the Air Corps fully even at the expense of its other branches. Under the Five-Year Program some 6,240 men transferred to the Air Corps, including one man from the Indian Scouts. As of 1929 these transfers had forced the army to inactivate five battalions of infantry and most of a field artillery regiment. Additionally, other items not envisioned under the Air Corps Act of 1926 had to be funded, including the costs of operations, research, technical construction, housing, and higher grades and special ratings for enlisted men. The Army accomplished these, as well, by curtailing activities and reducing troop strength further. In summary, Air Corps strength under the Five-Year Program expanded at the expense of the rest of the Army.[12]

The government and the Army, in short, did the best it could for its air arm, often at the expense of other missions. The air arm failed to receive all the support its leaders deemed necessary, less because of ignorance or neglect than because Army leaders refused to sacrifice the whole Army to fund one visionary branch that relied on, as of the mid-1930s, an unproven weapon. Further, there is little to suggest that an independent air force would have fared

better. An independent force, in fact, would have been an obvious, vulnerable target for budget cutting. To repeat, its technology was both expensive and unproven.

The budget situation began to change after 1933. Jeff Underwood, in his excellent *The Wings of Democracy*, suggests that Air Corps leaders became smarter, ceased agitating for independence outside the chain of command, and turned their attention to advertising air power through spectacular demonstrations. There is some truth to this. Hap Arnold, for one, had learned his lesson after being exiled to Fort Riley in 1925. But, in fact, agitation for independence did not cease after 1933; it simply shifted headquarters. When Army leaders selected Frank Andrews to command GHQ Air Force in 1935, they unwittingly created a new center for air power advocacy. Andrews, a traditional officer on the surface, had actually long supported an independent force, as had his strident chief of staff, the brilliant Maj. Hugh Knerr. As an example, in 1934 Representative John McSwain submitted a bill to Congress calling for Air Corps autonomy that had been written secretly by the Chief of the Air Corps, Maj. Gen. Benjamin D. Foulois. When the War Department queried him about the bill, Foulois lied, denying knowledge of its origin. In 1937, as Underwood describes, Frank Andrews did nearly the same thing for Representative J. Mark Wilcox. Again, demonstrations of air power were a public relations tool of the air arm from its beginning. Billy Mitchell and Mason Patrick were masters of the technique. Events like the flight from Washington to Alaska of 1934 and the goodwill flights to Buenos Aires, Argentina, and Bogota, Columbia, in 1938 had their counterparts in the New York to Alaska flight of 1920, the round-the-world flight of 1924, and the Pan American Goodwill Flight of 1926–1927.[13]

Actually, the most significant reasons the budget situation changed lay outside the Air Corps. First, the new Roosevelt administration determined to fight the Great Depression partly by throwing money at it, and the War Department and its Air Corps received a reasonable percentage of these funds. Second, international events such as the Japanese aggression in Manchuria and China, the rise of Nazi Germany, and the failure of disarmament increasingly forced the Roosevelt administration to strengthen its military. The geopolitical position of the United States meant that the U.S. Navy and the Army's air arm benefited most from that policy. "A new regiment of artillery, or new barracks at an Army post in Wyoming, or new machine tools in an ordnance arsenal would not scare Hitler one blankety-blank-blank bit!," Arnold quoted President Roosevelt as saying during a critical meeting on November 14, 1938.[14]

Despite funding shortages and squabbles with the General Staff, War Department, and Congress, the Air Corps made great progress within the Army's protective nest during the interwar years. During this vital period, Army Air Corps leaders developed the doctrine, equipment, and, most of all,

leaders for World War II and beyond.

The development of an air doctrine was intimately tied to the activities of the Air Corps Tactical School (ACTS) at Maxwell Field, Alabama. The ACTS provided the Army Air Corps with a body of professionally trained commanders and staff officers thoroughly indoctrinated with prevailing air power theories.[15] During the 1930s, the ACTS was led by a group of dynamic, innovative young instructors "concerned in determining how air power shall be employed in the next war and what constitutes the principles governing its employment," one of them, Maj. Harold L. George, explained.[16]

The school staff divided into two opposing camps. The Bombardment Section, led by Major George and men like 1st Lt. Kenneth N. Walker and Capt. Robert Olds, accepted that an offensive strategy built around the bomber was the proper role of an air force. "A well planned and well conducted bombardment attack, once launched, cannot be stopped," they proclaimed. While emphasis on bombardment dated at least from 1926, by 1933 the primacy of the bomber in air warfare was firmly established at the ACTS. In opposition to the bomber advocates stood the Pursuit Section headed by Capt. Claire Lee Chennault and including at various times Capt. George C. Kenney, Col. Millard F. Harmon, and Maj. Adlai H. Gilkeson. They believed in fighter aircraft as others did in the bomber. Chennault saw pursuit as an offensive, not a defensive, weapon and argued that this ability made it the basic arm of the air force.[17]

Technology decided in favor of the bomber. Chennault's arguments were difficult to refute until the arrival of the Martin B–10 and B–12 bombers, whose top speeds close or superior to that of the best available pursuit aircraft made interception difficult if not impossible. Chennault's answer was an early warning system based on a network of observers on the ground with telephones and radios for communications, a system he would use later to great effect in China. The obvious weakness in this system, however, was that it required a large land mass with a friendly population between the air bases and the enemy, something not always available.[18]

The Bombardment Section continued to refine its theories during the early 1930s. Instructors began emphasizing daylight bombing in place of night bombing, ensuring greater accuracy. Operating at greater altitudes provided increased safety. Another important development came in 1933 when Maj. Donald Wilson incorporated into the school text the concept of destroying key targets, thus disrupting the enemy's war-making capability. The ACTS came to accept such important targets as transportation, electricity, and steel production as the primary objectives of an air force. By 1935, the ACTS taught a fully developed theory of mass formation, high-altitude, daylight precision bombing of selected military and economic targets, the fundamental strategy of the U.S. Army Air Forces during World War II.[19]

It must be noted that, as Martha Byrd summarized in her recent biogra-

phy of Kenneth Walker, "these pre–World War II aviation officers faced a complex scenario wherein experience was thin, money scarce, and encouragement scant. They based their arguments on theory, speculation, and faith."[20] Thus, as my colleague Rich Davis has discussed in *Carl A. Spaatz and the Air War in Europe*, much of the ACTS doctrine would turn out to be invalid. Industrial nations proved far more resilient than expected, airmen undervalued air defense and failed to anticipate improvements in air defenses, and, especially, they failed to anticipate the improvement in fighters that would make them superior to the bomber.[21] Further, according to George Brett, the rise of the strategic air power doctrine had the added effect of making Army leaders even more intransigent about Air Corps independence. They recognized that this doctrine justified independence because, if practicable, it "met the Army's criteria of being able to materially affect the outcome of war."[22]

It must also be emphasized that the tools necessary to implement this doctrine really did not exist until after 1940. The 1930s, however, were a time of profound technological advancement for the airplane. The Air Corps' standard equipment as late as 1932 would not have looked out of place on the Western Front fourteen years earlier. The performance of Keystone and Curtiss biplane bombers scarcely exceeded those of the bombers of 1918, and the Curtiss and Boeing pursuits that still equipped the Air Corps in 1932 often impersonated World War I fighters in movies and looked entirely the part.

By 1934, however, the major characteristics of modern aircraft had developed. They were streamlined, all-metal monoplanes that featured a retractable landing gear, controllable-pitch propeller, and a shielded radio. A cowling designed by the National Advisory Committee on Aeronautics increased the speed and efficiency of air-cooled engines, and the use of Prestone coolant in place of water worked the same improvement in liquid-cooled engines. For the first time engineers seriously and systematically addressed the problems of parasitic drag. As a result, the speed of the average airplane roughly doubled. The first of the modern bombers, the twin-engine Martin B–10 with a top speed of 213 mph, for example, entered military service in 1934. The twin-engine Douglas DC–2 transport, with a speed of 202 mph, also entered commercial service that year. And only one year later, the Boeing XB–17 raced along at over 250 mph. By the mid-1930s, a radical improvement in all significant performance attributes—speed, range, service ceiling, bombload—had taken place, with profound implications for the future of air power.[23]

The pivotal year, it can be argued, was 1936. The pursuit competition held in April led to an order for seventy-seven Seversky P–35s, the Air Corps' first modern, all-metal pursuit, as well as for three Curtiss development aircraft that became the P–36. Later, in November, the Air Corps Technical Committee defined the characteristics of a modern interceptor, and the Air Corps subsequently ordered the Curtiss XP–37, a development of the P–36,

which became the P–40, and the Lockheed XP–38, the famous Lightning.[24]

For attack aircraft, the Air Corps purchased 117 Northrop A–17As, a version of the earlier A–17 with a retractable landing gear. For the primary flight training program, production began on twenty-six Stearman PT–13s, the first of thousands, and North American began delivery of eighty-two BT–9s, forerunners of a family of all-metal, low-wing basic and advanced trainers. The Air Corps also addressed cargo aircraft, and during the year, Douglas began delivery of eighteen C–33s, the military version of the DC–2, precursor of the ubiquitous C–47.[25]

Most important to Air Corps leaders were bombers. During October 1936 delivery began of eighty-two Douglas B–18 twin-engine medium bombers, and the Air Corps soon ordered another fifty. In September, Air Corps leaders exercised an option with Douglas for the production of an experimental bomber that flew finally in 1941 as the B–19. But it was the four-engine Boeing B–17 that airmen saw as the future of their force. It was the airplane that Air Corps leaders wanted above all others, and the weapon that strategic bombing doctrine demanded.[26] When he thought of the Flying Fortress and what it meant to air power, Hap Arnold became positively giddy:

> Our horizons had been strictly limited prior to the arrival of the four-engine bomber. Range, fire power, bombload—in all respects, our bombers before this had fallen short of the thing we all preached and hoped for, the "other" independent function of air power in which we had so long believed, which Billy Mitchell had described as if it were already there.[27]

In 1936, the Air Corps ordered thirteen YB–17s to keep the aircraft alive. Ultimately, these thirteen would be the only B–17s received prior to the summer of 1939, and less than 300 heavy bombers were on hand by Pearl Harbor, but they were a beginning.[28]

No component of an airplane was more vital than the engine, and 1930s saw vast improvement in these. During 1936, the liquid-cooled Allison V–1710–3 completed tests, and the Air Corps incorporated the resulting improvements into the V–1710–7, which was ready for type-testing at the end of the year. In other tests, the Pratt & Whitney R–985–11 air-cooled radial produced 400 bhp; the R–1535–11, 750 bhp; the R–1690–17, 850 bhp; and the XR–1830–9, 1,000 bhp. Another air-cooled radial, the Wright R–1820–45, also completed type-testing during 1936, producing a maximum of 930 bhp. A new gasoline increased engine power. During fiscal year 1936, the Air Corps began procurement of 100-octane fuel for use at Hamilton, March, and Selfridge Fields, and its use would soon extend to Barksdale Field. All told, the Air Corps purchased about 1,800,000 gallons during 1936.[29]

The status of the Army Air Corps on the eve of Pearl Harbor was mixed.

On the negative side, front-line aircraft like the Curtiss P–36, Bell P–39, Curtiss P–40, Douglas B–18, and early versions of the B–17 were already obsolete or obsolescent, and there were too few even of these. On the positive side, virtually every first-line combat aircraft that fought the war was under development or in production before December 7, 1941. There is little reason to believe that an independent air force would have been better prepared. On the contrary, the controversy over procurement of the B–18 versus the B–17 in the late 1930s suggests that an independent air force might have placed its eggs in one basket, the B–17. The result might very well have been an unbalanced force equipped in December 1941, with more groups of early-model B–17s and fighters no better than the P–35 and P–36. How much greater our early losses might have been and how long it would have taken to prepare a force capable of taking on the Axis had that been the case is open to speculation.

Dynamic leadership, too, developed during the interwar years. According to Arnold, "the smallness of the Air Corps had at least the beneficial result of producing a fine esprit, of making the concepts of air power . . . well understood. Out of this nucleus unit came the air leaders of the war, at the Air Force, the Command, and Air Division, Wing, and Group levels."[30] The highest levels of World War II leadership, men like Hap Arnold, Joseph T. McNarney, Carl A. Spaatz, Ira C. Eaker, and George Kenney, developed their leadership, knowledge, and skills during the 1920s and 1930s. Other leaders who had left military aviation for various reasons returned to perform outstandingly during the war. These included Chennault, James H. Doolittle, and Hugh J. Knerr. Still others comprised a younger generation who not only carried the Army Air Forces through World War II, but developed the modern U.S. Air Force after 1947. Their names are legion. Individuals like Curtis E. LeMay, Lauris Norstad, William H. Tunner, Hoyt S. Vandenberg, Ennis C. Whitehead, and a host of others were the best products of the old Army Air Corps.

And here, one must point out the real significance of the Air Corps Tactical School beyond developing the basic doctrine for the Army Air Forces. Graduates of the ACTS were thoroughly indoctrinated in a "clear and decisive concept of the proper employment of airpower." These men included three full generals—McNarney, Spaatz, and Kenney—and eleven three-star generals—Delos C. Emmons, George Brett, Barton K. Yount, Ira Eaker, Barney M. Giles, Harold George, John K. Cannon, Hoyt Vandenberg, George E. Stratemeyer, Nathan F. Twining, and Ennis Whitehead. Of the 321 Army Air Forces generals during World War II, 261 were graduates of the ACTS, and many went on to four-star rank under the U.S. Air Force.[31]

One expects the Air Corps to produce its own leaders. Most interesting is the position of airmen within the larger Army during World War II, thanks primarily to the greatest American soldier of this century, George C. Marshall. If there is an unrecognized hero of Air Force independence, it is Marshall. Marshall was distinguished especially for his open mind and his willingness to

apply new techniques. Shortly after he became chief of the War Plans Division in 1938, Frank Andrews, commander of GHQ Air Force, took him on an air tour of GHQ Air Force facilities and civilian aircraft factories on the West Coast. During the trip, Marshall learned a great deal about the advantages of long-range aircraft, the complexities of aircraft manufacturing, and the problems faced by military aviation. Most significantly he gained an immediate appreciation of the Army Air Corps airmen and leaders.[32]

Andrews, in fact, is a case in point. In the fall of 1938 Marshall overrode objections by Secretary of War Harry H. Woodring and Chief of Staff Gen. Malin Craig to promote Andrews to brigadier general, and assigned him to the War Department as G–3. Later, in 1941, Marshall placed Andrews in command of the air components of the Caribbean Defense Command, which had responsibility for the Panama Canal Zone, the most sensitive and important American overseas post. In September 1941 when Andrews took command of the Caribbean command, he became the first Air Corps general to command all ground and air units in a theater. When HQ North African Theater of Operations was established on February 4, 1942, the forces in England remained under the European Theater of Operations, United States Army, and Andrews took command on February 5th. It is true that when Andrews died in an aircraft accident in Iceland on May 3, 1943, an armored specialist, Lt. Gen. Jacob Devers, replaced him. However, Devers publicly stated that he supported strategic bombardment one hundred percent, and his chief of staff was a superb staff officer and airman, Maj. Gen. Idwal H. Edwards.[33]

Pearl Harbor provides another interesting example. When Marshall relieved Lt. Gen. Walter Short as commander of the U.S. Army in Hawaii following the Japanese attack, he chose veteran airman Maj. Gen. Herbert A. Dargue. Lest one think that this selection was an accident, when Dargue died in an airplane crash on the way to Hawaii, Marshall selected Lt. Gen. Delos Emmons, commander of GHQ Air Force, to replace him, underscoring his preference of a leader who understood air power for that vital command.[34]

In still another example, Marshall sent airman Maj. Gen. James E. Chaney to London in April 1942 as the chief of the Army Special Observation Group with Brig. Gen. Joseph T. McNarney as chief of staff. The choice of two Air Corps officers emphasized the importance attached to air power at this early date. As the command evolved over the next year, Chaney was responsible for developing the U.S. Army organizational structure in Great Britain, and he remained for some time the principal American officer in England in command of all ground and air forces in the European Theater of Operations. Chaney thus held the most important theater command in World War II.[35]

In another case, in mid-December 1941, Marshall selected Maj. Gen. George H. Brett as commander of United States Forces in Australia. An outstanding airman with extensive staff experience who was conveniently in the area at the time, Brett was in charge of the buildup of forces in Australia until

the arrival of Douglas MacArthur in early 1942. Further, during the Arcadia Conference, held from December 22, 1941, to January 14, 1942, the United States and Great Britain agreed on unity of theater command with all elements—air, ground, and sea—under a single commander. During this discussion, Marshall proposed British Gen. Sir Archibald Wavell as supreme commander in the Southwest Pacific with General Brett as his American deputy. The American-British-Dutch-Australian Command lasted only a short time, but was a sign of things to come.[36]

This list of assignments was almost shocking. For a short time in early 1942 *every* major overseas army command was held by an airman: Andrews in the Caribbean, Emmons at Pearl Harbor, Brett in Australia, and Chaney in England.

The most interesting example, though, is provided by Joseph T. McNarney. When President Roosevelt directed the first major increase in airplane production in November 1938, Arnold selected this tough, hard-nosed veteran of air war on the Western Front as part of the team that prepared the Air Corps expansion plan. Arnold later sent him to England, as was just mentioned, and McNarney was subsequently tapped for increasingly important posts outside the Air Corps. Marshall selected him to serve on the Roberts Commission that investigated the Pearl Harbor attack, when, as will be detailed, he ramrodded reorganization of the entire War Department early in 1942. McNarney subsequently served as Deputy Chief of Staff for the U.S. Army from March 9, 1942, through October 21, 1944. He finished the war as a full general and Deputy Supreme Commander in the Mediterranean, second in rank only to Arnold in the Army Air Forces.[37]

Many of these personnel decisions demonstrate the significant role assumed by air power upon American entry into World War II, whereas some indicate the availability of acceptable officers who happened to be on the scene. Beyond these factors, however, these events provide important evidence of Marshall's confidence in the command ability and judgment of many aviation officers. All told, it is difficult to imagine such appointments if someone like Gen. Hugh Drum, an inveterate opponent of an independent air force during the 1930s, had been chief of staff.

Probably no man had more to do with autonomy for Army aviation than George Catlett Marshall. Marshall gave Arnold autonomy after World War II began for three reasons, according to George Brett. First, President Roosevelt had accepted and emphasized the importance of air power. Second, the importance of air power was vividly demonstrated in Europe by the Germans in early 1940 and by the British in the Battle of Britain later that year. But third, and most important to Brett, was Arnold's "gentle prodding and Marshall's own appreciation of the capabilities of air war."[38]

Marshall learned from Andrews that the Air Corps lacked representation on the General Staff and that the officers on the General Staff had little inter-

est in or understanding of aviation. Marshall himself found the General Staff actively hostile to the Air Corps. "When I got back to Washington, I . . . found the General Staff officers had little interest in the air—mostly antipathy, and it was quite marked," he told his biographer in 1957. "The General Staff at that time had little understanding of the air."[39] When Marshall had Andrews promoted to brigadier general and assigned to the War Department as G–3, as was earlier described, it was a major change.[40] Andrews, himself, immediately established the Air Section in G–3, "thereby causing lifted eyebrows all over the munitions building."[41]

In September 1939, General Marshall and Secretary Woodring approved a War Department Air Board report, based on a report by the Air Corps Board at Maxwell Field, that stated:

> Air Power is indispensable to our national defense, especially in the early stages of war. . . . Our aviation in peacetime, both its organization and equipment, must be designed primarily for the application of Air Power in the early days of war. The basis of Air Power is the bombardment plane.[42]

The Army embodied this report in Field Manual 1–5 *Employment of the Aviation of the Army*, published on April 15, 1940, that replaced Training Regulation 440–15.[43]

Now to back up a bit. The establishment of GHQ Air Force separate from the Army Air Corps in 1935 was a major step forward that taught numerous operational lessons. But it also led to conflict between the two organizations and dislocation to the Army aviation program. This situation could be tolerated for a time, but the rapid expansion of air forces in the Caribbean, Hawaii, Philippines, and Alaska after 1939 intensified the difficulties between GHQ Air Force and the Air Corps, forcing the Army to address this issue. On February 29, 1941, Tooey Spaatz, now brigadier general and head of the Air Corps Plans Division, recommended that the U.S. Army adopt the best features of the British unified command system. Arnold also protested the loss of time getting Air Corps business cleared through the General Staff. On March 26 and 27, 1941, Marshall conferred with Arnold and Lt. Gen. George Brett, Chief of the Air Corps. As a result, Army Regulation (AR) 95–5, issued on June 20, 1941, created the U.S. Army Air Forces consisting of the Army Air Corps and Air Force Combat Command. Arnold also remained Marshall's deputy, the principal spokesman for air power in the highest councils of the U.S. Army, and adviser to the President on military aviation. The Army Air Forces staff established under Arnold paralleled that of the Army's General Staff and included A–1 Personnel, A–2 Intelligence, A–3 Operations and Training, A–4 Supply and Maintenance, and an Air War Plans Division. The Army Air Forces also had its own budget but shared support services with the

ground forces.[44] Brig. Gen. Leonard T. Gerow stated that the purpose of the new organization was to create, "so far as possible within the War Department, a complete autonomy similar in character to that exercised by the Marine Corps of the Navy."[45] And according to an Army official historian, Ray S. Cline: "The growth of a comparatively independent military organization, the Army Air Forces, out of one of the branches constituted the most radical change in War Department organization before World War II.[46]

The new organization, however, failed to deal with several serious problems. First, it failed to resolve the divisions between the Chief of the Air Corps and the Commander of Air Force Combat Command. Second, it left relationships with the War Department poorly defined, allowing for overlapping responsibilities. Third, airmen still believed that it failed to extend sufficient operational autonomy to the Army Air Forces in that the Army still considered itself responsible for all strategic plans. This last issue may have been the greatest sticking point for the Army Air Forces to negotiate. The War Plans Division of the General Staff still exercised a veto over any plan produced by the Air War Plans Division of Arnold's staff. Subsequently, air leaders engaged in a quiet but intense effort to have that arrangement changed, even proposing that AR 95–5 be written to rename the Air War Plans Division the Air Division of the General Staff. Their efforts failed, but circumstances would soon dramatically negate this problem.[47] The catalyst was AWPD–1.

On July 9 President Roosevelt asked the Joint Board of the Army and Navy to determine the production requirements for a war with Germany, Italy, and Japan, in accordance with the provisions of war plan Rainbow 5, which postulated fighting a defensive war in the Pacific while combining with England an France to achieve victory in Europe, then achieving victory in the Pacific. The War Plans Division of the General Staff was in charge of producing the Army's response. Lt. Col. Clayton Bissell, assigned to prepare the aviation requirements, asked Lt. Col. Harold George of the new Air War Plans Division to loan him some air officers. George, who believed that the War Plans Division had a conservative, ground-oriented view of warfare that would color any plan produced, proposed that the Air War Plans Division staff write the Army Air Forces portion of the war plan. General Gerow agreed and work began on August 4, 1941. Four former instructors at the ACTS prepared AWPD–1: Colonel George, Lt. Col. Kenneth N. Walker, Maj. Haywood S. Hansell, Jr., and Maj. Laurence S. Kuter.[48] "Suddenly," Hansell later wrote, "we found ourselves able to plan our own future."[49] Over the next few days these men poured into AWPD–1 the U.S. Army Air Forces concept of precision, daylight, strategic bombardment.

AWPD–1 called for a massive air offensive against Germany and Japan "to destroy the will and capability of those countries to continue the war; and to make an invasion either unnecessary or feasible without excessive cost." The primary objectives of the campaign were target systems that supported the

German state and its ability to make war; the intermediate objective was the German Air Force. This air offensive, according to AWPD–1, would occur before the ground Army even entered the picture, and it was thus necessary that the Army Air Forces be given priority for equipment, training, and deployment.[50]

In a surprising development given the amount of scrutiny Air Corps plans faced in previous years, AWPD–1 was rapidly approved. When the Army Air Forces submitted the plan to the heavily burdened, overworked War Plans Division, that office simply labeled it "ANNEX 2 Munitions Requirements of the AAF for the Defeat of Our Potential Enemies" and bundled it with the rest of the package off to the Government Printing Office for reproduction. A presentation to G–3 Operations went well, as did one to Spaatz and Gerow. The key briefing to Generals Marshall and Arnold took place on August 30. Marshall recommended that it be given to the Secretary of War, bypassing the Joint Army-Navy Board, thus avoiding review by the Navy. During the briefing to Secretary of War Henry L. Stimson and Assistant Secretary John J. McCloy on September 11 and 12, McCloy praised the plan for its offensive spirit in contrast with Army plans still grounded in the doctrine of hemispheric defense. The "Victory Program" went forward to the President on September 25, 1941.[51]

It is probable that under normal circumstances AWPD–1 might still have been modified heavily. However, at the time the Japanese attacked Pearl Harbor, AWPD–1 was the only logical, legitimate plan immediately available to the War Department. At the Arcadia Conference between December 22, 1941, and January 14, 1942, President Roosevelt, Prime Minister Winston Churchill, and the Combined Chiefs of Staff accepted AWPD–1 as the guide for the development of U.S. Army airpower.[52] Consequently, as Hansell later wrote: "AWPD–1, with minor modifications, was established as the schedule on which the Army Air Forces were created and developed. It also became (and remained) the established concept on which the strategic air offensive was based."[53] Furthermore, the "completion of the first major strategic air war plan by the newly formed Army Air Forces staff in only nine days was a notable achievement," according to historian Robert Futrell, "which marked both the apex of prewar air force doctrinal thought and a blueprint for the air war that would follow."[54]

In the meantime, General Marshall remained displeased with an Army staff organization that he found complicated and unresponsive. Marshall wanted an organization based on four principles. First, the Chief of Staff must deal with a minimum number of subordinates; second, each subordinate must have the means to do his job; third, along with the means must go the authority; and, fourth, the organization must follow functional lines. In August 1941 Lt. Col. William K. Harrison, Jr., of the Plans Group, War Plans Division, submitted a proposal to divide the Army into three separate services: the air forces, ground

forces, and services of supply. Under this proposal, the General Staff would become a policy and planning agency for the Chief of Staff, and each of the three services would have its own planning staff. Harrison's proposal was apparently judged too radical at the time it was submitted.[55]

Army Air Forces leaders also disliked the existing organization. Tooey Spaatz prepared a plan similar to Harrison's, and Arnold offered it to the General Staff on November 14, 1941. The Army Air Forces' proposal argued that the war machine required unity of command within the air force, unity of command within the ground force, and unity of command over both of them. The organization of the Army Air Forces, it declared, solved the organization of the air arm. Now something similar needed to be done for the other elements of the Army, and a *superior* staff consisting of both ground and air personnel must be created. The General Staff could then deal effectively with the two fighting forces, each having its own planning staff. Further, both air and ground forces would have equal access to services and supply grouped under another commander. Arnold's proposal met Marshall's four goals for the Army's organization.[56]

Marshall appointed a War Plans Division committee to make a detailed study of the Army Air Forces proposal, and the composition of that committee was telling. The senior officer was General McNarney, who was assisted by Colonel Harrison and Major Kuter. The committee thus consisted of two airmen and the man who first proposed the concept under consideration. This committee quickly approved the plan.[57] On March 9, War Department Circular 59 implemented the new organization. This massive change marked a watershed in Army administration. A General Staff officer, Maj. Gen. Otto L. Nelson, Jr., later wrote that it was "the most drastic and fundamental change . . . since the establishment of the General Staff by Elihu Root in 1903."[58]

Only the shock of Pearl Harbor, the presence of a world war, and the determination of George C. Marshall made the reorganization possible. Marshall timed the change to coincide with vacancies in the office of two of the chiefs of combat arms and the expiration of the Adjutant General's time in office. He cleared the changes through Secretary Stimson to preempt White House meddling, and he made the changes quickly, keeping Congress out of the process.[59] Furthermore, Marshall picked airman Joseph McNarney to ramrod the reorganization. McNarney, mean enough to go nose to nose with the Navy's most irascible admiral, Richmond Kelly Turner, was, in Forrest Pogue's words "a tough hatchetman with a rhinoceros hide and the nerve to push through the reorganization in the face of rugged infighting."[60]

The reorganization created the Army Air Forces under Arnold, Army Ground Forces under Lt. Gen. Leslie J. McNair, and the Services of Supply (later Army Services Forces) under Maj. Gen. Brehon B. Somervell on a coequal basis. Most significantly, it radically reduced the size, power, and scope of the General Staff, and the staff that remained included equal numbers

of ground, air, and service officers. Within the Army Air Forces, the reorganization eliminated Air Forces Combat Command and the Office of the Chief of the Air Corps. In March 1942 the U.S. Army Air Forces thus gained the degree of autonomy it needed to fight World War II successfully in accordance with strategic air power doctrine.[61]

Arnold's importance further enhanced Army Air Forces autonomy. In early 1942 he joined Marshall and Admirals Leahy and King as a member of the Joint Chiefs of Staff, and when working jointly with their British counterparts they became the Combined Chiefs of Staff.[62] Most significant, however, was Arnold's position in the U.S. command hierarchy. According to Craven and Cate, official historians of the Army Air Forces in World War II, "regardless of the legal position of the AAF as a service and training organization without combat functions, its chief was in fact a most powerful agent in the conduct of the war in several theaters."[63] The vital importance of air power in any combat action gave Arnold a "definite and direct" role in the planning and operation of combat activities in every theater. Arnold communicated with air commanders in the field often and personally, thus the Army Air Forces exercised an "informal but effective control of air operations, especially long-range strategic bombing, which cut across the boundaries of ground theaters." By the end of 1943, Army Air Forces planners were speaking and dealing openly with Operations Plans Division planners about strategic air forces outside of the theater commanders.[64]

Beyond an individual's position in an organization or command, and his personal reputation, it was performance that counted during World War II, and here the Army Air Forces provided the biggest argument for independence. According to George Brett:

> The convincing wartime contributions of the AAF served as the clincher. The Army's senior leaders no longer could, nor would, claim that air power was merely an auxiliary. The demonstrated effectiveness of strategic bombing destroyed the army's arguments of the 1920s and 1930s that the air arm did not warrant independent status because it could not independently influence the outcome of war.[65]

It is perhaps too much to say that, after the U.S. Army Air Forces' great contributions to victory during World War II, independence was inevitable. It must be remembered that, as in the case of the legislation that created the U.S. Air Service in 1918, the legislation that established the Army Air Forces in 1942 was temporary, good only for the duration of the war. It held no guarantees for postwar independence. The final step probably depended on a single individual. George Catlett Marshall recognized what was required, and in 1943 he directed his staff to prepare a study for an independent air force that

would follow the victory to come.[66]

And perhaps independence was best as far as the U.S. Army was concerned. After all, the air leaders might have resolved upon a different goal. On May 8, 1943, Col. Samuel E. Anderson, later commander of IX Bomber Command in England, wrote to Brig. Gen. John E. Hull, Acting Assistant Chief of Staff, Operations Plans Division, concerning a dispute over British air-ground doctrine. The Air Forces, Colonel Anderson pointed out, are "vitally concerned with the success of our ground forces. But the Air Forces very properly do not try to influence ground force doctrine, tactics and technique, nor do the Air Forces want to command the Ground Forces or control them in any way." Colonel Anderson continued, "It may surprise you to learn that some naval aviation officers think this is a foolish attitude on the part of the Army Air Forces; that these same naval aviation officers do not want a separate air force but want *and expect* to control the Navy within a few years. They think the Army Air Forces could and should do the same with respect to the Army."[67]

Notes

1. Ltr, Gen. of the Armies John J. Pershing to Maj. Gen. Charles T. Menoher, Chief of A.S., Jan 12, 1920, quoted in Maj. Gen. Charles T. Menoher, Report of Chief of Air Service, *War Department Annual Reports for 1920*, p. 1459.

2. *Aircraft in National Defense*, Senate Document No. 16, 69th Cong., 1st sess., Nov 30, 1925, p. 91. On September 12, 1915 President Calvin Coolidge appointed a board headed by banker Dwight W. Morrow to study the use of aircraft in national defense. The board's report in November rejected an independent air force but led to establishment of the U.S. Army Air Corps.

3. See note 1 above.

4. Quoted in DeWitt S. Copp, *A Few Great Captains: The Men and Events That Shaped the Development of U.S. Air Power* (Garden City, N.Y.: Doubleday & Co. Inc., 1980), p. 281.

5. H.H. Arnold, *Global Mission* (New York: Harper & Bros., 1949), p. 157.

6. Jeffery S. Underwood, *The Wings of Democracy: The Influence of Air Power on the Roosevelt Administration, 1933–1941* (College Station: Texas A&M University Press, 1991), p. 4; James P. Tate, "The Army and Its Air Corps: A Study of the Evolution of Army Policy Towards Aviation, 1919–1941" (unpublished Ph.D. dissertation, Indiana University, 1976), pp. 89, 257.

7. Tate, "Army and Its Air Corps," pp. 251–255.

8. *Ibid*., p. 132. The annual reports of the Chiefs of Staff for the period are consistent on this point. See, especially, Gen. Douglas MacArthur, Annual Report of the Chief of Staff, *Annual Reports, 1934*, p. 45.

9. Tate, "Army and Its Air Corps," pp. 44–46.

10. 44 Stat 721; R. Earl McClendon, *Autonomy of the Air Arm* (Maxwell AFB, Ala.: Air University, Jan 1954; Washington, D.C.: Air Force History & Museums Program, 1996), pp. 75–76; Tate, "Army and Its Air Corps," pp. 89–90, 53–54; George H. Brett, "The Air Force Struggle for Independence," *Air Power History,* Fall 1996, pp. 26–27.

11. Gen. Douglas MacArthur, Annual Report of the Chief of Staff, *Annual Reports, 1934*, pp. 40–41; *Ibid., Annual Reports, 1935*, pp. 52–53.

12. Tate, "Army and Its Air Corps," p. 153; Gen. Charles P. Summerall, Report of the Chief of Staff, *Annual Reports, 1930*, p. 124.

13. Underwood, *Wings of Democracy*, pp. 85–87; John F. Shiner, *Foulois and the U.S. Army Air Corps, 1931–1935* (Washington, D.C.: Office of Air Force History, 1983), pp. 11, 96–98; Maurer Maurer, *Aviation in the U.S. Army, 1919–1939* (Washington, D.C.: Office of Air Force History, 1987), pp. 174–190, 325–344, 352–361.

14. Arnold, *Global Mission*, p. 177.

15. The standard source on ACTS is Robert T. Finney, *History of the Air Corps Tactical School, 1920–1940* (Maxwell AFB, Ala.: Air University, 1955; Washington, D.C.: Center for Air Force History, 1992). See also the appropriate chapters in Robert Frank Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907–1960*, 2 vols. (Maxwell AFB, Ala.: Air University Press, Dec 1989), and Martha Byrd, *Kenneth N. Walker: Airpower's Untempered Crusader* (Maxwell AFB, Ala.,: Air University Press, Mar 1997), p. 37.

16. Quoted in Finney, *Air Corps Tactical School*, pp. 58–59.

17. Haywood S. Hansell, Jr., *The Air Plan That Defeated Hitler* (Atlanta, Ga.: Higgins-McArthur, 1972), pp. 12–20; Futrell, *Ideas, Concepts, Doctrine*, Vol. I, p. 82; Tate, "Army and Its Air Corps," p. 210; DeWitt S. Copp, *Forged in Fire: Strategy and Decisions in the Air War Over Europe, 1940–1945* (Garden City, N.Y.: Doubleday & Co., Inc., 1982), p. 197.

18. Hansell, *Air Plan That Defeated Hitler*, pp. 18–19, 22.

19. Finney, *Air Corps Tactical School*, pp. 64–68.

20. Byrd, *Kenneth N. Walker*, p. 37.

21. Richard G. Davis, *Carl A. Spaatz and the Air War in Europe* (Washington, D.C.: Center for Air Force History, 1993), p. 30.

22. Brett, "Air Force Struggle," p. 26.

23. Futrell, *Ideas, Concepts, Doctrine*, Vol. I, p. 64; Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces in World War II*, 7 vols. (Washington, D.C.: Office of Air Force History, 1983), Vol. I, p. 58.

24. Maj. Gen. Oscar Westover, Annual Report of the Chief of the Air Corps for the Fiscal Year 1936, *War Department Annual Reports, 1936*, p. 40; Futrell, *Ideas, Concepts, Doctrine*, Vol. I, pp. 82–83.

25. Westover, Annual Report of the Chief of the Air Corps for the Fiscal Year 1936, p. 40.

26. *Ibid*.; Craven and Cate, *Army Air Forces in World War II*, Vol. I, p. 69.

27. Arnold, *Global Mission*, p. 156.

28. Westover, Annual Report of the Chief of the Air Corps for the Fiscal Year 1936, p. 40; Craven and Cate, *Army Air Forces in World War II*, Vol. I, p. 69; Vol. VI, pp. 204–205.

29. Westover, Annual Report of the Chief of the Air Corps for the Fiscal Year 1936, pp. 54, 60.

30. Arnold, *Global Mission*, p. 167.

31. Finney, *Air Corps Technical School*, pp. 42–43.

32. Underwood, *Wings of Democracy*, pp. 120–122.

33. Craven and Cate, *Army Air Forces in World War II*, Vol. I, p. 165; Vol. II, pp. 115, 309, 635; Copp, *Forged in Fire*, pp. 393–394, 397; Forrest C. Pogue, *George C. Marshall: Ordeal and Hope, 1939–1942* (New York: Viking Press, 1966), p. 85.

34.Copp, *Forged in Fire*, pp. 218–219.

35. *Ibid*., pp. 115, 262; Craven and Cate, *Army Air Forces in World War II*, Vol. I, pp. 577–578, 589.

36. Pogue, *George C. Marshall*, pp. 242, 281.

37. Ray S. Cline, *Washington Command Post: The Operations Division* (Washington,

D.C.: Office of the Chief of Military History, 1951), p. 89.
38. Brett, "Air Force Struggle," p. 28.
39. Intvw, Marshall Jan 22, 1957, in Larry L. Bland, ed., *The Papers of George Catlett Marshall*, 2 vols. (Baltimore, Md.: The Johns Hopkins University Press, 1981), Vol. p. 618.
40. Pogue, *George C. Marshall*, p. 85.
41. Futrell, *Ideas, Concepts, Weapons*, Vol. I, p. 92.
42. Quoted in *Ibid*., p. 95.
43. *Ibid*.
44. *Ibid*., Vol. I, p. 104: Tate, "Army and Its Air Corps," p. 237.
45. Quoted in Cline, *Washington Command Post*, p. 23.
46. *Ibid*., p. 22.
47. *Ibid*., pp. 68–69; McClendon, *Autonomy of the Air Arm*, pp. 108–109.
48. Hansell, *Air Plan That Defeated Hitler*, pp. 60–65, 69–70; Davis, *Spaatz*, pp. 59–60; Underwood, *Wings of Democracy*, p. 149.
49. Hansell, *Air Plan That Defeated Hitler*, p. 65.
50. *Ibid*., p. 91.
51. *Ibid*., pp. 90, 93–97; Futrell, *Ideas, Concepts, Weapons*, Vol. I, p. 111.
52. Hansell, *Air Plan That Defeated Hitler*, p. 97–98.
53. *Ibid*., p. 98.
54. Futrell, *Ideas, Concepts, Weapons*, Vol. I, p. 109.
55. Maj. Gen. Otto L. Nelson, Jr., *National Security and the General Staff* (Washington, D.C.: Infantry Journal Press, 1946), p. 336; Cline, *Washington Command Post*, pp. 70–71; Pogue, *George C. Marshall*, pp. 291–292.
56. Cline, *Washington Command Post*, pp. 69–70, 72; Pogue, *George C. Marshall*, pp. 291–292.
57. Cline, *Washington Command Post*, pp. 90–91.
58. Nelson, *National Security and the General Staff*, p. 335.
59. Pogue, *George C. Marshall*, pp. 292–298.
60. *Ibid*., p. 292.
61. Nelson, *National Security and the General Staff*, pp. 337–350; McClendon, *Autonomy of the Air Arm*, pp. 124–126.
62. McClendon, *Autonomy of the air Arm*, pp. 126–128.
63. Craven and Cate, *Army Air Forces in World War II*, Vol. I, p. 576.
64. Cline, *Washington Command Post*, pp. 253–254.
65. Brett, "Air Force Struggle," p. 28.
66. *Ibid*.; McClendon, *Autonomy of the Air Arm*, pp. 126–128.

67. Memo, Col. Samuel E. Anderson to Brig. Gen. John E. Hull, Acting Assistant Chief of Staff, May 8, 1943, Box 1305, OPD–384, Record Group 165, National Archives.

Arnold, Eisenhower and Norstad: The Fight for Air Independence

Herman S. Wolk

From a retrospective of half a century, events and currents, some more definable than others, converged to make the institution we know today as the United States Air Force. The immediate post–World War II years saw a confluence of advocates, circumstance, politics and technology that led to the successful drive for a separate Air Force. The antecedents of the contentious postwar campaign for an independent Air Force first came to public notice in the interwar years, which were marked by the convening of Congressional committees to consider how to organize the Army air arm, and more important, in World War II, when airmen's long drive for a separate Air Force culminated.

Support for independence spread throughout the Army in the early postwar years. Besides Gen. Henry H. "Hap" Arnold, no other advocates were more influential than Gen. Dwight D. Eisenhower and Maj. Gen. Lauris Norstad. Not surprisingly, the earliest push for independence came from airmen, and Arnold's support for independence predated the war. Shortly after the Japanese attack on Pearl Harbor, General Arnold, now Commanding General of the Army Air Forces living with the day-to-day pressures of the war, nonetheless began formal planning for a postwar independent Air Force. At war's end, Eisenhower and Norstad joined him and other supporters of air independence as part of the move to redefine the national security establishment.

By 1945 the Army air arm had taken several important organizational steps towards autonomy. In 1926 the Army Air Corps was formed from the Air Service, giving military aviation the status of a combat arm of the U.S. Army. With the establishment of the General Headquarters Air Force in 1935, airmen assumed operational control of tactical air units. During World War II the so-called "Marshall reorganization" of March 1942 made the Army Air Forces (AAF) coequal to the Army Ground Forces and the Services of Supply. The AAF thereby achieved a degree of autonomy within the War Department, a

move that Maj. Gen. Otto L. Nelson, Jr., of the War Department General Staff, called "the most drastic and fundamental change which the War Department had experienced since the establishment of the General Staff by Elihu Root in 1903."[1]

Because of General Arnold's presence on the Joint Chiefs of Staff and the Anglo-American Combined Chiefs of Staff, during the war the AAF held representation on JCS committees. The AAF's position in the highest joint planning and strategy councils amounted to an acceptance of the Army air element as a military service virtually equal to the Army and Navy.

The independent character of AAF wartime planning extended to worldwide strategic operations. General Arnold had long advocated "independent" strategic bombing operations, exempt from control by theater commanders. Centralized control of air forces by airmen became a reality in April 1944 with formation of the Twentieth Air Force, a strategic bombing force directly under Arnold's command as executive agent of the JCS. In effect, the Twentieth, whose B–29s conducted the bombing campaign against the Japanese home islands, gave the AAF equality with the ground and naval forces in the Pacific. Arnold had long viewed the B–29 as the means of defeating Japan without the necessity of an invasion. As he wrote in one of his final reports after the war, Japan was forced to surrender because "air attacks, actual and potential, had made possible the destruction of their capability and will for further resistance . . . those . . . attacks had as a primary objective the defeat of Japan without invasion."[2] Arnold also insisted on keeping the B–29s out of the hands of theater commanders, since he was convinced that a successful long-range campaign by the Superfortresses would cement the case for a postwar independent Air Force. It is not an exaggeration to describe Arnold's commitment to the B–29 as his great wartime obsession. His view was shared by Gen. George Kenney, MacArthur's air commander in the Pacific, who wrote to Arnold in 1943 that the B–29 was "the plane with which we will win the war." [3]

At the same time that the Joint Chiefs approved the Twentieth Air Force arrangement, in April 1944 Congress turned to the question of how to structure the postwar military. The Woodrum Committee hearings elicited Army and AAF support for postwar reorganization that would include a separate Air Force. Naval leaders, on the other hand, testified against creation of a single department of national defense and concluded that the entire subject of postwar organization required additional study.

The JCS wanted, however, to have a postwar plan in hand when the war ended. The following month, May 1944, the Joint Chiefs therefore appointed a Special Committee for Reorganization of National Defense. After ten months of study, the committee's report, with a dissent by Adm. James O. Richardson, recommended formation of an independent Air Force coequal with the Army and Navy. Richardson and the Navy's leadership—Admirals Leahy, King and Nimitz—opposed a single department, arguing it would pro-

duce neither economy nor efficiency. The Navy would suffer, they emphasized, in that its requirements would be subject to review by officials who had no responsibility for initiating them. The Navy would be weakened by people who failed to understand its needs. But in the wartime committee's review, the Navy was overruled.

World War II having ended over Hiroshima and Nagasaki with the dropping of atom bombs by B–29 Superfortresses of the Army Air Forces, General Arnold now looked ahead. There had been two Hap Arnolds during the war—the first a military officer who built and commanded the Army Air Forces, the second a thoughtful man of foresight who in the midst of the war planned for the organization and force structure of the postwar independent Air Force. Early in the war, he had formed several groups in AAF headquarters that considered a peacetime organization. With the Japanese surrender, the planning assumed a sense of urgency. Arnold's major objective was the establishment of a separate Air Force as part of the postwar national security setup. Intertwined with this overriding goal, he advocated unified command and provision for a proper research and development organization.

"Each new crisis in our history," Arnold emphasized, "has found our armed services far from effectively, efficiently or economically organized. With each crisis modernization and coordination have been hammered out under war pressure at great waste of resources, to be allowed in large measure to lapse when the crisis is over."[4] The lessons of the war demanded "coordinate organization" of ground, air and naval forces, each under its own commander, and each responsible to a supreme commander.

Arnold distinguished between "fundamental" air power and what he considered "manifestations" of air power as "auxiliaries of land and sea power." When the Japanese attacked the United States at Pearl Harbor, Arnold pointed out, "there was no Air Force, with the complete air mission. No one had single basic responsibility for the air."[5] In the postwar world, the United States required an independent service with total responsibility for the development and employment of fundamental air power.

Although the postwar revolution in national security thinking and organization had deep roots in the experience of World War II, the idea of an independent Air Force as a ready force, a force-in-being, would be unprecedented in peacetime twentieth-century America. This new entity would be a standing military force, alert to retaliate against an aggressor's capacity to wage war. Air power would become the primary instrument of American foreign policy.

General Arnold's concept of air power, evolving as it had from his familiarity with American military aviation from its earliest days, was linked in his mind with certain basic "principles of American democracy." Most important, "personnel casualties are distasteful. We will continue to fight mechanical rather than manpower wars."[6] World War II demonstrated that the cost of war in lives and resources had become prohibitive. The United States required a

new postwar military establishment featuring the most modern weapons with minimum cost to the American taxpayer.[7] General Arnold believed in the consummate ability of the American people to understand the issues of national security and to act upon this understanding. "Air power," Arnold emphasized, "will always be the business of every American citizen." The American people "would decide whether this nation will continue to hold its air supremacy. In the final analysis, our air striking force belongs to those who come from the ranks of labor, management, the farms, the stores, the professions, the schools and colleges, and the legislative halls."[8]

Besides airmen, no uniformed officer backed the idea of an independent Air Force more forcefully than the Supreme Commander, General Eisenhower, whose experience in the war convinced him of the equality of ground, sea and air arms under unified command. "No system of joint command," Eisenhower stated, "could possibly have brought victory to our cause."[9] The military services comprised a single fighting team, according to Eisenhower, each supportive of the other. "We believe," he said, "that the fighting forces should rest on a three-legged stool with each leg equally important—Army, Navy, Air Forces."[10] In the several months after the end of the war, when the Navy unilaterally pursued its own postwar requirements, Eisenhower reiterated that no single service could be considered independently. The services were mutually supporting.[11]

Eisenhower observed that the postwar environment demanded strict economy and that three coequal military departments under a single overall defense establishment would deliver most for the taxpayer's dollar. Whether or not the proper legislation was passed by the Congress, Eisenhower directed his War Department Staff in December 1945 to proceed as if the law would be forthcoming. "My idea," he said, is "to go as far as we can within the legal limits imposed on us to carry out the basic idea . . . the Air Commander and his staff are an organization coordinate with and coequal to the land forces and the Navy. I realize that there can be other opinions . . . but that seems to me to be so logical from all our experiences in this war, such an inescapable conclusion that I, for one, can't even entertain any longer any doubt as to its wisdom."[12]

General Eisenhower's predecessor as President, Harry Truman, also strongly supported formation of an independent Air Force. In retrospect, their advocacy sealed the verdict. After the war, as a U.S. senator, Truman had been determined to reorganize the defense establishment. "One of the strongest convictions which I brought to the Presidency," Truman recalled in his memoirs, "was that the antiquated defense setup . . . had to be reorganized quickly as a step toward insuring our future safety and preserving world peace."[13] Truman had been especially critical of the Pearl Harbor failure, which he attributed to inadequate command organization and faulty communications. "We came to the conclusion," he said, "that any extended military effort required overall coordinated control in order to get the most out of the three armed forces. Had

we not early in the war adopted this principle of a unified command for operations, our efforts, no matter how heroic, might have failed."[14]

It was time for a unified defense establishment, the new President emphasized. The military services could no longer go their separate ways. He proposed a Department of National Defense headed by a civilian with three "coordinated" branches representing the land, sea and air forces. Thus, an independent Air Force would take its place alongside the Army and Navy: "Air power has been developed to a point where its responsibilities are equal to those of land and sea power and its contribution to our strategic planning is as great."[15] In Truman's view, unification became evolutionary, with creation of a Department of National Defense being a first step. "Unification is much more than a matter of organization," the President maintained: "It will require new viewpoints, new doctrine, and new habits of thinking throughout the departmental structure."[16]

The Navy vehemently opposed the plan. "As the President knows," Secretary of the Navy Forrestal angrily responded, "I am so opposed to the fundamental concept expressed in the message that I do not believe there is any very helpful observation that I could make."[17] The naval leadership remained fearful that an independent Air Force would grab naval aviation and that the Army might even attempt to take over the Marine Corps. Secretary of the Navy Forrestal favored coordination through joint committees, as opposed to formation of a single Department of National Defense and a separate Air Force.

Despite the Navy's reluctance to join the War Department in supporting unification legislation, including formation of a separate Air Force, the Senate Military Affairs Committee established a subcommittee to draft the legislation. Maj. Gen. Lauris Norstad, Assistant Chief of Air Staff, Plans, and Vice Adm. Arthur W. Radford, Deputy Chief of Naval Operations (Air), were appointed as advisers to the subcommittee. Norstad brought impressive credentials to this task. He had come to Arnold's attention prior to American entry into the war, and in March 1942 the AAF Chief selected the young officer to become a member of his advisory council, a small, select group that advised Arnold on any number of matters. General Arnold then gave the thirty-five-year-old officer needed operational experience in England and the Mediterranean in 1943–1944 before bringing him back to Washington as Chief of Staff of the Twentieth Air Force, and then in the two-star position as Assistant Chief of Air Staff, Plans.

In the latter post Norstad took the lead in crafting the AAF's positions on postwar reorganization and unification. "I was intensely interested in this," he later recalled, "and I got an extra office in the Pentagon and I put up paragraph by paragraph, all of the proposals that had been made on every one of the pertinent subjects, on organizational relationships. . . . this did not require a hell of a lot of staff work. It required a little leg and arm work."[18]

In early 1946, Norstad and Radford sat in on the subcommittee's deliberations, and in April a bill (S. 2044) was reported to the Military Affairs Committee that combined features of the Eberstadt report (given to Forrestal) and the War Department's Collins plan. In May, the Military Affairs Committee recommended to the Senate that S. 2044 be passed. This Common Defense Act of 1946 called for formation of a Department of Common Defense, coequal military services, and a Chief of Staff of Common Defense who would also serve as military adviser to the President.

Although the Navy continued to stonewall, Truman made clear to Secretary Forrestal and Secretary of War Robert Patterson that he wanted quick action to resolve the major issues. In late May Forrestal and Patterson found agreement on eight points, but they failed to resolve basic questions of a single defense department, establishment of an independent Air Force, land-based aviation and the status of the Marine Corps. Continuing to oppose a single department, the Navy argued that its own officers should make decisions regarding naval resources. The Navy remained fearful that a Secretary of National Defense might ultimately emasculate naval forces. However, Eisenhower, Norstad, and Commanding General of the AAF Gen. Carl A. Spaatz believed that in the postwar world the country could not afford a system that permitted unnecessary duplication. The services should be mutually supporting.

Truman welcomed agreement on the eight points but, disappointed with the lack of progress, directed Patterson and Forrestal to craft legislation for a Department of National Defense, to include a separate Air Force. The Navy would keep aircraft integral to the fleet, and the Marine Corps would continue to be part of the Navy Department. "The internal administration of the services," Truman asserted, "should be preserved in order that the high morale and esprit de corps of each service be retained."[19]

Forrestal then replaced Radford with Vice Adm. Forrest Sherman, Deputy Chief of Naval Operations (Operations), for the ongoing unification negotiations. The Joint Chiefs directed Norstad (now Director of Plans and Operations in the War Department General Staff) and Sherman in July 1946 to draft a unification plan. Norstad's move to the General Staff, specifically at General Eisenhower's request, indicated Eisenhower's confidence in Norstad and signaled the War Department's recognition of the air arm's maturity.

In the summer of 1946 Norstad and Sherman confronted the issue of how to organize unified commands in the overseas theaters. During the war in the Pacific the question of unified command had never been resolved. The Navy wanted command structured according to geographical areas while Norstad argued that commands should be organized functionally. In December President Truman approved the Outline Command Plan, as negotiated between Norstad and Sherman. It called for a system of unified command in which a single commander would control land, naval and air forces within a specific

geographical area. Norstad called it "an idea whose time had come."[20]

Norstad and Sherman then worked out the details of a draft agreement on functions and organization. Patterson and Forrestal informed Truman that the proposed legislation would create an Office of the Secretary of National Defense and three civilian service secretaries. The Departments of the Army, Navy and Air Force would be under the overall direction of the Secretary of National Defense but administered as separate entities, each with its own military chief. The Joint Chiefs of Staff would comprise the military heads of the three services, subject to the direction of the Secretary of National Defense and supported by a Joint Staff.

Some issues remained unresolved. The Navy wanted roles and missions written into the unification act. General Eisenhower however, stressed that the unification bill should only chart basic principles and not become sidetracked in an effort to describe how each service would operate: "I believe that intelligent men can make almost any organization work as time goes on, if your law isn't too rigid."[21] Eisenhower and the AAF won this point; in February 1947 Truman sent Congress the draft of the National Security Act of 1947. Following Senate and House approval, on July 26, 1947, President Truman signed the legislation. On the same day, Truman signed Executive Order 9877, describing the functions of the armed services.

The National Security Act created a National Military Establishment, to include the Departments of the Army, Navy and Air Force. The Act stipulated that the Secretary of Defense would be a civilian appointed by the President as his principal assistant for national security. The Act specified that the Navy retain the Marine Corps and naval aviation, which would comprise combat, service and training elements and "land-based naval aviation, air transport essential for naval operations, all air weapons and air techniques involved in the operations and activities of the Navy."[22] The Navy would also be responsible for naval reconnaissance, antisubmarine warfare and protection of shipping. Like the Army and Navy, the Marine Corps would be allowed "such aviation as may be organic therein."[23] The Act stipulated that "the Air Force shall include aviation forces both combat and service not otherwise assigned. It shall be organized, trained and equipped primarily for prompt and sustained offensive and defensive air operations. The Air Force shall be responsible for the preparation of the air forces necessary for the effective prosecution of war except as otherwise assigned and, in accordance with integrated joint mobilization plans, for the expansion of the peacetime components of the Air Force to meet the needs of war."[24] The Air Force would be constituted as an executive department headed by a civilian secretary; the President would appoint the Chief of Staff, USAF, for a four-year term.

Stuart Symington, the first Secretary of the Air Force, correctly stated that promulgation of the National Security Act of 1947 amounted to a first step in the evolution of the postwar military establishment. The Act charted the

fundamental national security organization for the second half of the twentieth century. It did not settle contentious roles and missions issues; these continued to flare up like alleged dying embers. James V. Forrestal, the first Secretary of Defense, perhaps put it best: "The mere passage of the National Security Act did not mean the accomplishment of its objective overnight. It is not strange that professional military men should think in terms of the service to which they have devoted their entire adult lives; it is to be expected. But unification calls for . . . a broader vision."[25]

The legislation was only a starting point in creating a truly integrated military establishment. Its passage had taken a long time, a great deal of effort, and much give-and-take by all concerned. Symington differed with those critics who believed that the Navy had succeeded in structuring the unification bill expressly to suit its own purposes. Nor did he share the resentment of those who felt that Norstad had capitulated to the Navy's demands in structuring the post of Secretary of Defense as a coordinator. The first Secretary of the Air Force argued that under the circumstances, Norstad had done an outstanding job. His task had not been easy. Of all the Air Force participants, Symington said, "Norstad should get the most credit for unification. In the days when it looked grim, he stuck to it."

In their deliberations on functions and organization, Norstad and Sherman faced some difficult compromises. They realized that President Truman had laid out the major tenets of unification organization, namely a single department of national defense and three coequal services, including a separate Air Force. The Navy lost on the issue of Air Force independence but won its point of having individual services and administration. Under the National Security Act, the Secretary of Defense would be a coordinator as the Navy wanted, not a strong administrator as desired by the Army and the Air Force.

After appointing Forrestal, Truman named Symington as Secretary of the Air Force, John L. Sullivan as Secretary of the Navy, and Kenneth C. Royall as Secretary of the Army. Having been Assistant Secretary of War for Air since January 1946, Symington brought top-flight management credentials to his new post. He had also shown uncommon ability to work effectively with Congress and had nurtured an excellent working relationship with General Spaatz. The Symington-Spaatz combination held the promise of unusually fine leadership for the newly independent Air Force.

The men who made the Air Force are sometimes criticized for parochialism, for being obsessed with technology. They were not thinkers, so the argument goes. However, a consideration of the record indicates that, as I noted on the twenty-fifth anniversary of the Air Force, they were idealistic as well as practical, visionaries as well as technologists. They supported the new United Nations organization, for example, and believed that it deserved a chance to build an institutional framework for a peaceful world order. In 1946, Gen. George C. Kenney became the AAF representative on the United Nations

Military Staff Committee. Although a UN military force including an international Air Force was never established, the founders of the Air Force believed that air power could keep the peace, deter war and make the UN a credible institution.

They were, as a former editor of *Air University Quarterly Review* Col. Kenneth F. Gantz remarked, "the revolutionists of their time."[26] As we look back a half century, it is instructive to note their optimism, clear thinking, determination and integrity. These men painted a large canvas and set a high standard. We owe them a great debt.

Notes

1. See Maj. Gen. Otto L. Nelson, Jr., USA, *National Security and the General Staff*, Infantry Journal Press, Washington, D.C., 1946.
2. *Third Report of the Commanding General of the Army Air Forces to the Secretary of War*, Nov 12, 1945.
3. Notebooks of Gen. George C. Kenney, Vol. VI, Ltr, Kenney to Arnold, Jul 28, 1943.
4. Statement, Gen. H.H. Arnold to Senate Committee on Military Affairs, Oct 19, 1945.
5. *Ibid*.
6. Memo, for Theodore von Kármán from Gen. H.H. Arnold, subj: AAF Long Range Development Program, Nov 7, 1944, Gen. Carl A. Spaatz Collection, Box 58, Manuscript Division, Library of Congress.
7. See note 4 above.
8. *Third Report of the Commanding General of the Army Air Forces to the Secretary of War*, Nov 12, 1945, p. 71.
9. Testimony, Gen. Dwight D. Eisenhower to Senate Military Affairs Committee, Nov 16, 1945.
10. General Eisenhower's comments to the War Department General Staff, Dec 6, 1945, quoted in Third Mtng. of the Air Board, Aug 28, 1946, p. 148, in Record Group (RG) 340, Modern Military Branch (MMB), National Archives (NA).
11. Eisenhower testimony, Nov 16, 1945.
12. Eisenhower comments Dec 6, 1945.
13. Harry S. Truman, *Memoirs*, Vol. II: *Years of Trial and Hope*, Doubleday, Garden City, N.Y., 1956, p. 46.
14. Message, President Harry S. Truman to Congress, Dec 19, 1945.
15. *Ibid*.
16. *Ibid*.
17. Ltr., James V. Forrestal to Samuel Rosenman, Dec 18, 1945, cited in Richard F. Haynes, *The Awesome Power*: *Harry S. Truman as Commander-in-Chief*, Louisiana State University Press, Baton Rouge, 1973, p. 98.
18. Intvw, Hugh Ahmann, AFHRA, with Gen. Lauris Norstad, Feb & Oct 1979, K239.0512–1116.
19. Truman message to Congress, Dec, 19, 1945.
20. See Norstad essay in Paul Schratz, ed., *Evolution of the American Military Establishment Since World War II*, George C. Marshall Foundation, Lexington, Va., 1976.
21. Testimony, General Eisenhower to Patch Board, Sept 23, 1945, in RG 165, Patch-Simpson Bd. file, MMB, NA.
22. *The National Security Act of 1947*, Sec. 206 (a), "Department of the Navy."
23. *Ibid*.

24. *Ibid*., Sec. 208 (f), "United States Air Force."
25. Secretary of Defense James V. Forrestal, *First Report on the National Military Establishment*, 1948.

26. Intvw, Herman S. Wolk and Thomas A. Sturm with Col. Kenneth Gantz, Maxwell AFB, Feb, 16, 1972.

The Evolution of The Office of the Secretary of the Air Force

George M. Watson, Jr.

The Office of the Secretary of the Air Force (OSAF) had its roots in World War I when John D. Ryan became the second Assistant Secretary of War and Director of the Air Service. Ryan held the position for only three months, at which time the war ended. With his resignation, the position was disestablished.

After several years of postwar inactivity, in 1925 the Morrow Board, headed by Morgan Bank partner Dwight W. Morrow, produced a report that, along with other studies, encouraged Congress to undertake an extensive examination of American defense. As a result of these efforts Congress passed the 1926 Army Air Corps Act, which called for an expanded military program with more personnel and aircraft. The newly established Air Corps attained greater prestige than its predecessor, the Air Service, because, for the first time, aviation enjoyed representation on the Army General Staff.

World War I: Assistant Secretary of War for Air

Section Nine of the Air Corps Act also established a second Assistant Secretary of War for Air, the office first held by F. Trubee Davison. A graduate of Yale University and Columbia Law School, Davison became a member of the New York bar in 1922 and later served several terms in the New York State legislature. He had been instrumental in organizing the First Yale Unit, which formed the nucleus of the first Naval Reserve Flying Corps, and he served overseas in World War I. Among his many activities as Assistant Secretary of War for Air, Davison involved himself in the important area of procurement, helping the Air Corps to secure funding for its programs. (The focus on procurement would likewise become a prime concern of Secretary Robert A. Lovett during World War II.)

In the fall of 1932 Davison resigned from office to run for lieutenant governor of New York. President Herbert Hoover did not name a replacement,

nor did his successor, President Franklin D. Roosevelt, who kept the position vacant. Roosevelt may have been influenced by his Secretary of War George H. Dern who believed that air forces, like all other branches of the Army, should report directly to the Chief of Staff. (The Air Corps did not report directly to Davison.) The Army's General Staff had never really felt that the Air Corps warranted a special representative to the Secretary of War. Davison was convinced that the position remained unfilled because of the "jealousy of the older services."

World War II: Assistant Secretary of War for Air

Robert A. Lovett, who became Assistant Secretary of War for Air in 1941, was no stranger to his task. He knew the original Assistant Secretary of War (Aeronautics), having learned to fly during the summer of 1916 while staying at the Davison home in Long Island, New York. Like Davison, Lovett had served in the Naval Air Service in World War I. After the war, from 1919 to 1921, he studied both law and business administration at Harvard. In 1921 he joined the National Bank of Commerce in New York City and five years later became a partner in the investment firm of Brown Brothers Harriman and Company, staying there until resigning to become Special Assistant to the Secretary of War in December 1940. He maintained his interest in aviation throughout the interwar years, so he brought to his new job familiarity with the subject.

Although he held no statutory authority to direct procurement matters, as did Under Secretary of War Robert P. Patterson, Lovett remained actively involved in production problems. With Secretary of War Henry L. Stimson's encouragement, Lovett devoted his energies to the promotion of aircraft production. He advised Stimson and worked closely with the military at the same time, offering opinions on a variety of issues without undue concern about the formal chain of command.

Lovett focused on points in the process that posed the greatest threat to production schedules. He attempted to settle labor disputes and at times intervened when the Office of Production Management, and subsequently the War Production Board, failed to accord proper priority to Army Air Forces contractors, subcontractors and their suppliers. In 1942 and 1943 he disputed President Roosevelt's production goals, which he felt were excessively optimistic and therefore detrimental to the aircraft program. He also made an effort to strengthen the management of some government contractors. During the war Lovett served as a sounding board for industry's complaints and requests.

Stimson had a broad conception of Lovett's role. He told the air secretary that if anyone asked about his authority, tell them "whatever authority the Secretary of War has, you have." However, four years after Lovett became Assistant Secretary of War of Air, his duties still remained fairly general, if not

ill-defined. Brig. Gen. George A. Brownell, Lovett's executive officer, claimed that the activities of the Assistant Secretary of War for Air touched upon every phase of Army Air Forces' activity at one time or another. These included "technical development, procurement, production, organization, finance, legislation, public relations, both foreign and domestic civil aviation, and to coordinate these and like matters with other governmental agencies concerned."

Lovett advised both Stimson and Patterson on production and procurement of aircraft and offered counsel to Generals Marshall and Arnold. Although Lovett issued orders to no one, his closeness to Stimson gave him considerable leverage. In shaping his duties he created a direct and personal line of communication between the Secretary of War and the air arm. Arnold credited Lovett with reducing the number of men involved in aircraft production decisions from nine to two—Patterson and Lovett himself.

Lovett's ability to form good working relationships with key military officers as well as civilians in the War Department was one of the most important attributes that he brought to his office. During the war he carried on a personal correspondence with such prominent AAF commanders as Gens. Carl A. Spaatz and George C. Kenney and Lt. Gen. Ira C. Eaker. Lovett's friendship with General Arnold was important to smooth communications with Army Chief of Staff Gen. George C. Marshall and with Secretary of War Stimson. Marshall prized the judgment, calm appraisal and intellectual balance that Lovett brought to policy meetings. Arnold and Lovett saw each other frequently, and since their offices adjoined, much of their work was done informally so that many of their decisions and discussions were not recorded.

With the reorganization of the Department of Defense in September 1947, Lovett's wartime organization became the Office of the Secretary of the Air Force. Lovett's conduct in public office and his vision of the Office of the Assistant Secretary of War for Air set the pattern in 1946–1947 for his successor Stuart Symington, who confronted similar problems. In a real sense, Secretary Lovett can be seen as an important bridge between Trubee Davison and Stuart Symington. In his exercise of responsibility and authority, he established continuity and legitimacy between the old and the new. Like Trubee Davison, Lovett made procurement his top priority. He was also influential in the realm of strategy and organization, playing a role in the AAF reorganization of May 1942 and helping determine the character of the postwar Air Force. The manner in which Lovett and General Arnold divided authority and responsibility set the pattern for the civilian-military relationship at the top echelon of the Air Force. Although his authority was not clearly defined by statue, and he largely dealt with procurement, Lovett was an able adviser in other areas as well.

In sum, as Assistant Secretary of War for Air, Lovett was a man who could maneuver adeptly within the sometimes tortuous channels of the War Department, form friendships with and earn the respect of most of those with

whom he dealt, whether military personnel, government officials, or businessmen. His most important contribution, however, was helping to equip the world's largest and strongest air force, which in turn contributed to the defeat of Italy, Germany and Japan.

1947–1950: The First Secretary of the Air Force

World War II ended in August 1945, and the wartime Assistant Secretary of War for Air, Robert A. Lovett, left office in December. As his replacement, President Truman selected Stuart Symington, a successful businessman who had served with the U.S. Army in Europe during World War I. Between the wars Symington had earned a reputation for saving companies from bankruptcy and turning them into profitable enterprises. He had served as president and chairman of the board of one of those companies, Emerson Electric Company of St. Louis, Missouri. In 1941 the War Department asked Symington to accompany a group of aeronautical engineers to England to study aircraft armament, particularly the new British power-driven gun turrets. Upon his return to the United States, Symington turned the Emerson Company to wartime production, the company becoming the largest manufacturer of airplane armament.

During the war U.S. Senator Harry Truman had chaired a special committee investigating the National Defense Program. He became acquainted with Emerson Electric and came away impressed with its management. As President, Truman hoped to channel some of the talent he had discovered in the private sector into public service. Therefore, when the President asked him to join the government, following the advice of his father-in-law Senator James W. Wadsworth of New York, Symington resigned from Emerson. In July 1945 he became chairman of the Surplus Property Board, and the following October, administrator of the Surplus Property Administration.

Symington's work at Surplus Property undoubtedly contributed to Truman's decision to ask him to head the Air Force, which had a huge amount of property to dispose of and distribute after the war. Although Symington had planned to remain in government for only six months, the President wanted him to stay longer, so he offered him the choice of three positions: Assistant Secretary of the Navy for Air, Assistant Secretary of State, or Assistant Secretary of War for Air. Symington felt that his business background would be of greater service to the AAF than to the Navy. He had, after all, dealt with the AAF during the war, but even more important, the air arm seemed on the verge of independence. Here, he believed, lay the greatest challenge, one that his managerial and organizational talents could assist. According to Symington, it was his general business experience rather than his handling of surplus property that led to his selection as Assistant Secretary of War for Air in February 1946.

Symington was confident of his business skills, but he realized he was a novice at air operations. Thus, he left the day-to-day running of the air arm to military men. In this respect he established a precedent for future secretaries of the Air Force. He felt he could accomplish his managerial goals by persuading Congress of the importance of air power, in effect selling the operational programs devised by Gen. Carl Spaatz and other uniformed leaders. As Assistant Secretary of War for Air he showed himself unafraid to confront higher authorities in order to advance the cause of air power. He turned his attention therefore to work toward an independent Air Force and to establish a cost-control system within the AAF. He did not want the air arm dependent on elements of the War Department, for in the past the Army's technical services had sometimes dictated what quantity and types of equipment the AAF should have. Symington hoped to operate the AAF like Emerson Electric, with accurate information funneled into an office or center that had the ability to punish waste and reward efficiency. This businesslike approach represented a tremendous shift for the AAF because during the war there had been very few spending restraints. Now Symington wanted the AAF to perform its military mission and at the same time account for every dollar it spent for that purpose. Cost control would force the AAF to live within its means and to adjust to difficult times, traits required by any successful business. To enforce cost control, Symington instituted a system whereby the comptroller would function at the same staff level as the Deputy Chiefs of Staff for Personnel, Materiel, Plans and Operations. Lt. Gen. Edwin W. Rawlings became comptroller, and when this function became successful at headquarters, the same position was created at major commands. According to Symington, "the Air Force had an unusual opportunity to look toward efficiency, no past heritages, no barnacled procedures to first overcome."

On July 26, 1947, the National Security Act established the Department of the Air Force, now a separate service and the coequal of the Army and the Navy. On September 18 the Office of the Secretary of the Air Force was officially activated, and Stuart Symington took the oath of office as the first Secretary of the Air Force. He had a free hand in setting up his office—he was not forced into a predetermined organizational mold. He intended to establish the simplest, most effective and most efficient organization possible. He wanted close contact with the Air Staff and the OSAF so that he and Chief of Staff Carl Spaatz could delegate maximum authority to a handful of operating executives while maintaining close supervision over them and ensuring cooperation between the civilian and military staffs. As a result, both Symington and Spaatz could concentrate their individual and collaborative efforts on larger problems of their own choosing.

By law the OSAF was authorized one under secretary and two assistant secretaries. Symington asked Arthur Barrows, the former president and later vice chairman of the board of Sears, Roebuck, and Company, to become his

under secretary. Barrows, who would concentrate upon procurement and production, research and development, soon gained a reputation among contractors as a no-nonsense type. As one example, when a contractor complained to Barrows that the Air Force did not like him, Barrows retorted, "We haven't said anything bad about you: we have just let it be known that we think you are a bunch of cheap, chiseling thieves."

Cornelius Vanderbilt Whitney, who became Assistant Secretary of the Air Force (Civil Affairs), worked with other government agencies on military-diplomatic air matters such as negotiating land purchases for air bases and protecting or defending U.S. bases on foreign soil. Whitney was a businessman who had worked on Eisenhower's staff during World War II and was a friend of the air secretary and a relative of his wife. Symington considered that the Whitney name, famous in finance and politics since the late nineteenth century, brought prestige to the Air Force.

Eugene M. Zuckert, who became the Assistant Secretary of the Air Force (Management) responsible for programming, cost control and organizational and budget planning, rounded out the staff. Zuckert had worked for Symington at the Surplus Property Administration and in the Office of the Assistant Secretary of War for Air. He would become Secretary of the Air Force in 1961.

Although it was clear that, as the senior civilian, Symington was in charge of the Department of the Air Force, he maintained good relationships with his Chiefs of Staff, Gens. Carl Spaatz and Hoyt Vandenberg. He respected his military staff and relied on them for advice on military matters. After they reached a decision, he would do his best to sell it on Capitol Hill. He once told the author that he operated on the premise, "Give me the ball and I will run it on the hill."

In 1947 the service secretaries were very powerful in relation to the Secretary of Defense. In fact, they were nearly equals. All sat on the National Security Council. Symington had some stiff go-arounds with Secretary of Defense Forrestal, who nearly fired Symington over a speech the latter made in Los Angeles.

During his tenure as Secretary, Symington consistently pushed for the 70-group Air Force. Although he argued that 70 groups were not enough to win a war, it would provide a bare means of survival against an initial onslaught by an enemy. Symington also helped lay the groundwork for two Air Force institutions—an Air Engineering Development Center and an Air Force Academy. The B–36 issue dominated the last year of Symington's tenure. It was charged that he and then Secretary of Defense Louis Johnson pursued the B–36 because of their friendship and interests in common with the manufacturer. Symington was exonerated; not one "scintilla" of evidence supported the charges, reports, rumors and innuendoes.

At the same time, Symington was troubled by his increased responsibil-

ities to the Air Force without the means to fulfill them, so he resigned his position. Subsequently he commented that his greatest disappointment as secretary was his failure to achieve a 70-group program. However, shortly after he left office in April 1950 the 70-group issue became moot.With the beginning of the Korean War, federal coffers reopened, and a formerly austerity-minded administration and Congress pursued a how-much-do-you-need policy.

After his stint as Secretary, Symington ran for political office and continued to pursue his interest in the Air Force. Regrettably, secretaries who followed Symington possessed increasingly less power. Several pieces of legislation significantly diminished the role of the service secretaries, namely the 1949 Amendments to the National Security Act; Reorganization Plan No. 6 of June 30, 1953; and the Defense Reorganization Act of 1958.

As the first and most powerful Secretary of the Air Force to date, Symington endured an administration whose frugalities dampened his hope of securing a 70-group Air Force. Despite the paucity of funds, the Air Secretary managed to distribute sufficient Air Force contracts to keep the aviation industry afloat. He built a modern force as well as the research and development facilities to keep it going. W. Stuart Symington was the kind of leader the Air Force needed during its imperiled infancy.

Note: The source for this paper is *The Office of the Secretary of the Air Force, 1947–1965*, written by the author and published in 1993 by the Center for Air Force History, now the Air Force History and Museums Program.